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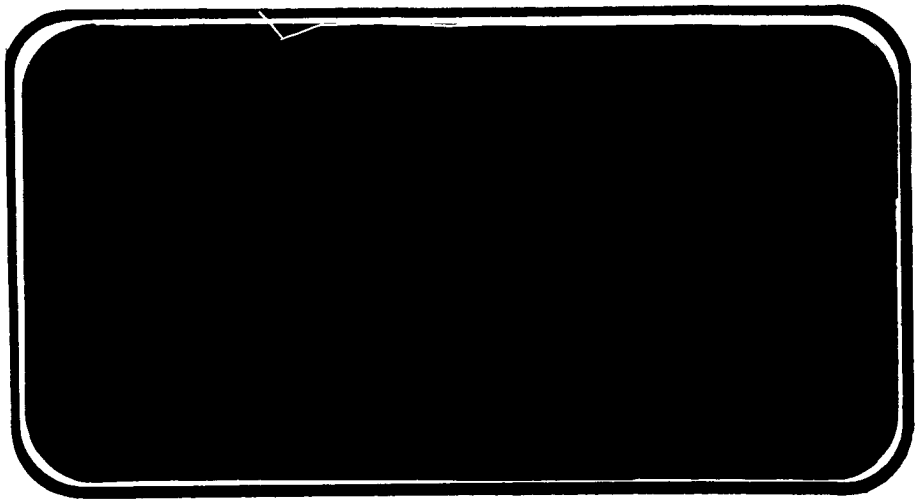

(NASA-CR-160484) CALIBRATION TESTS OF THE SPACE SHUTTLE AIR DATA SYSTEM USING A 0.10 SCALE ORBITER FOREBODY MODEL (99-0) IN THE AEDC 16T PROPULSION WIND TUNNEL, (OA232), VOLUME 1 (Chrysler Corp.) 742 p

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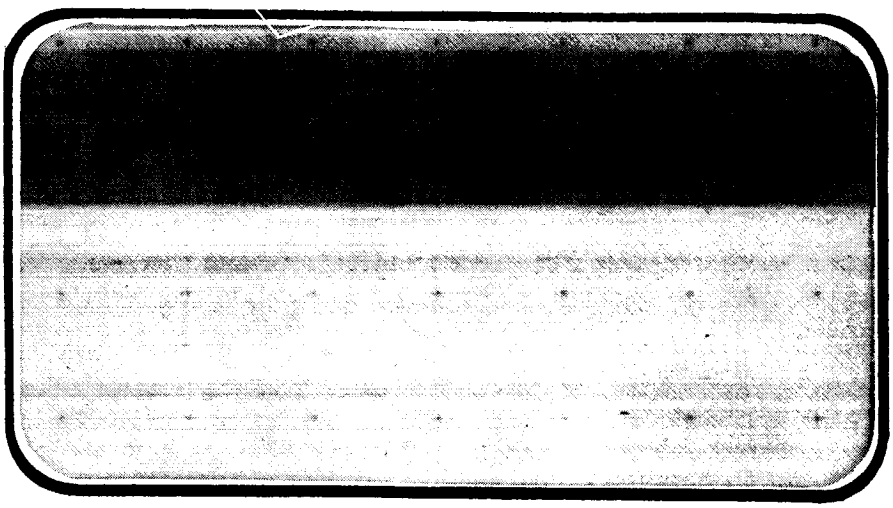
SPACE SHUTTLE AEROTHERMODYNAMIC DATA REPORT

Data Man AGEMENT SERVICES

SPACE DIVISION CHRYSLER CORPORATION

National Aeronautics and
Space Administration

Lyndon B. Johnson Space Center
Houston, Texas 77058



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Data Management SERVICES

SPACE DIVISION CHRYSLER CORPORATION

March 1980

DMS-DR-2414
NASA-CR-160,484

VOLUME 1 OF 2

CALIBRATION TESTS OF THE SPACE SHUTTLE AIR DATA SYSTEM USING A 0.10-SCALE ORBITER FOREBODY MODEL (99-0) IN THE AEDC 16T PROPULSION WIND TUNNEL

(OA232)

by

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Rockwell International, Space Systems Group

Prepared under NASA Contract Number NAS9-13247

by

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for

Engineering Analysis Division

Johnson Space Center
National Aeronautics and Space Administration
Houston, Texas

WIND TUNNEL TEST SPECIFICS:

Test Number:	TF 431
NASA Series Number:	OA232
Model Number:	99-0
Test Dates:	February 15, 1978 through February 28, 1978
Occupancy Hours:	82

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CALIBRATION TESTS OF THE SPACE SHUTTLE AIR DATA SYSTEM USING A 0.10-SCALE ORBITER FOREBODY MODEL (99-0) IN THE AEDC 16T PROPULSION WIND TUNNEL (OA232)

by

W. R. Carlson, R. R. Burrows and J. Marroquin
Rockwell International, Space Systems Group

ABSTRACT

This report presents calibration test results of the 0.10-scale SSV orbiter forebody model 99-0 in the AEDC 16-T Propulsion Wind Tunnel. Testing was conducted between February 15, 1978 and February 28, 1978 with 82 total occupancy hours and 178 runs.

The primary objective of these tests was to provide a calibration of the side-mounted air data probes and the nose boom-mounted FT probe; specifically to 1) determine the local angle of attack, 2) measure probe static pressure error, and 3) determine the effect of probe scale.

Two alternate air data systems were evaluated:

1. A flush port system in the forward fuselage and
2. Instrumented RCS thruster chambers.

Mach numbers tested varied from 0.2 to 1.55 at Reynolds numbers up to 4.2×10^6 per foot. Angle of attack was varied from -8° to $+8^\circ$ and sideslip angles between $\pm 8^\circ$.

This report for ØA232 consists of two volumes:

Volume 1 - Plotted Data Figures 4-93,

Volume 2 - Tabulated Source Data.

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Schedule of Coefficients Plotted:

A) CPS1A vs. α

B) CPS1A vs. M

C) CPTA vs. α

D) CPTA vs. M

E) CPAL vs. α

F) CPAL vs. M

G) CPAU vs. α

H) CPAU vs. M

I) PS1LDC vs. α

J) PS1RDC vs. α

K) PS1ADC vs α

L) PS1LDC vs. M

M) PS1RDC vs. M

N) PS1ADC vs. M

O) Static Pressure Decrement vs. M

P) PT1LDC vs α

Q) PT1RDC vs α

R) PT1ADC vs α

S) PT1LDC vs M

T) PT1RDC vs M

U) PT1ADC vs M

V) Total Pressure Decrement vs. M

W) α vs. RAL

X) α vs. RAR

Y) α vs. RAA

Z) RAL vs. M

AA) RAR vs. M

BB) RAA vs. M

CC) RAL, RAR vs. M

DD) CPSF, β vs. α ; CPSF vs β;

EE) CP1,CP3,CP4,CP5,CP6 vs α

FF) CP11,CP12,CP13,CP14 vs. α

GG) CP43,CP44 vs α

HH) CPSF vs. α

II) CPTF vs α

JJ) CPFA vs. α

KK) CPFB vs. α

LL) PSFDEC vs. α

MM) PTFDEC vs. α

NN) RAF vs. α

OO) RBF vs. α

NOMENCLATURE

SYMBOL	MNEMONIC	DEFINITION
a		speed of sound, m/sec., ft/sec
AADS		local ADP Angle of attack, degrees
ADS		air data system
ADP	ADP	side mounted air data probe
	CA	axial force coefficient
C_p	CP	pressure coefficient, $(p_1 - P_\infty)/q$
C_{p_i}	CPI	static pressure coefficient at tap i
	CPITOT	PITOT pressure coefficient
	CPSA	PSA pressure coefficient, (PSA-P)/q
	CPSF	FT probe static pressure coefficient
	CPTA	0.2-scale ADP total pressure coefficient
	CPTF	FT probe total pressure coefficient
	DALF	sting deflection angle, degrees
	DPSI	sting deflection angle, degrees
	DPI	differential pressure at tap i
$f_{\alpha_{ADS}}$		ADS side probe α calibration relationship
f_{α_F}		FT probe α calibration relationship
f_{β_F}		FT probe β calibration relationship
	FRL	fuselage reference line
FT	FTP	Rosemount flight test probe
i_{F_α}		FT probe incidence angle in the pitch plane, degrees

SYMBOL	MNEMONIC	DEFINITION
i_{F_β}		FT probe incidence angle in the yaw plane, degrees
	LA	left hand ADP mounting block - aft position locates the tip of a 0.2-scale probe at the proper location of a 0.1-scale probe
	LFN	Left hand ADP mounting block - forward position - new. Locates the static pressure tap of a 0.2-scale probe at the proper location of a 0.1-scale probe. Also properly locates a 0.1-scale probe.
	LFO	Left hand ADP mounting block - forward position - old. Locates the static pressure tap of a 0.2-scale probe at the proper location of a 0.1-scale probe. However, the probe support blade was rolled 5.7° in excess, inboard-end up.
M	MACH	Mach number, V/a
M_2	M2	Mach number behind the probe shock
M_ℓ	MACHAX	ADP local Mach number forward of the probe shock, X = L, R or A
	MACHFL	FT probe local Mach number
P	P	freestream static pressure, psf
PAL	PAL (CPAL)	ADS 0.2-scale side probe lower pressure measurement, psf (Pressure Coefficient)
PAU	PAU (CPAU)	ADS 0.2-scale side probe upper pressure measurement, psf (Pressure Coefficient)
	PC	chamber pressure, psf
	PFA (CPFA)	pressure at α tap of FT probe, psf (Pressure Coefficient)
	PFB (CPFB)	pressure at β tap of FT probe, psf (Pressure Coefficient)

SYMBOL	MNEMONIC	DEFINITION
P_i	PI	pressure at station i, psf
	PITOT	local PITOT Pressure, psf
P_ℓ	PLA	local pressure forward of the ADS probe shock, psf
	PSA	0.2-scale ADP static pressure measurement, psf
	PSF	FT probe static pressure, psf
	PSFDEC	FT probe static pressure decrement
	PSF/P	ratio of FT probe static pressure to free-stream static pressure
	PSXDEC	0.2-scale ADP static pressure decrement, X = L, R or A
	PSX/P	ratio of 0.2-scale ADP to freestream static pressures, X = L, R or A
	PS1A (CPS1A)	0.1-scale side ADP static pressure, psf (Pressure Coefficient)
	PS1XDC	0.1-scale side ADP static pressure decrement X = L, R or A
	PS1X/P	ratio of 0.1-scale side ADP static to free-stream pressures
P_t	PT	tunnel freestream total pressure, psf
P_{t1}	PT1	total pressure in front of ADS probe shock wave
	PT1XDC	0.1-scale side ADP total pressure decrement based on PS1A, X = L, R or A
P_{t2}	PT2	total pressure behind ADS probe shock wave
	PTA	0.2-scale ADP total pressure, psf
	PTF	FT probe total pressure, psf

SYMBOL	MNEMONIC	DEFINITION
	PTFDEC	FT probe total pressure decrement
	PTF/PT	ratio of FT probe total pressure to freestream total pressure
	PTXDEC	0.2-scale ADP total pressure decrement, X = L, R or A
	PTX/P	ratio of 0.2-scale ADP to freestream total pressures, X = L, R or A
q	Q(PSF),Q	freestream incompressible dynamic pressure, psf
	QCF/QC	ratio of FT probe to freestream compressible dynamic pressures
q_c	QCOMP, QC	freestream compressible dynamic pressure, psf
	QC1X	0.1-scale side ADP compressible dynamic pressure based on PS1A, psf, where X = A, L, R or X
	QCX	ADS side probe compressible dynamic pressure, X = L, R or A, psf
	QCX/QC	ratio of ADS side probe to freestream compressible dynamic pressures, a_{cx}/q_c, X = L, R or A
	Q*X/QC	ADP Q ratio $(PTA-P_\infty)/Q_{COMP}$
	RA	Right hand ADP mounting block - aft position. Locates the tip of a 0.2-scale probe at the proper location of a 0.1-scale probe.
	RAF	Rosemount FT probe angle of attack calibration parameter.
	RBF	Rosemount FT probe angle of sideslip calibration parameter
	RAX	ADS side probe α calibration parameter, X = L, R or A

SYMBOL	MNEMONIC	DEFINITION
	RFN	Right hand ADP mounting block - forward position - new. Locates the static pressure tap of a 0.2-scale probe at the proper location of a 0.1-scale probe. Also properly locates a 0.1-scale probe.
	RFO	Right hand ADP mounting block - forward position - old. Locates the static pressure tap of a 0.2-scale probe at the proper location of a 0.1-scale probe. However, the probe support blade was rolled 5.7° in excess, in-board-end up.
RN/FT	RN/L, RE	Reynold's number per foot x 10^{-6}
T_t	TT	tunnel total temperature, °F
T_R	TTR	tunnel total temperature, °R
V		velocity, m/sec, ft/sec
α	ALPHA	model FRL angle-of-attack, degrees
α_{ADSX}	AXP	local angle-of-attack, measured by ADS side probe WRT the probe $\mathcal{L}$, degrees
α_{ADSX}/α	AXP/A	ratio of ADS probe local to model FRL angle-of-attack, X = L, R or A
α_F	AF	FT probe-indicated orbiter angle-of-attack WRT the FRL, degrees
α_F/α	AF/A	ratio of FT probe-indicated orbiter α to model α
α_{FT}	AFP	FT probe local angle-of-attack WRT the probe centerline, degrees
α_i		indicated model angle-of-attack, degrees
	ALFI	sting angle-of-attack, degrees

SYMBOL	MNEMONIC	DEFINITION
α_u	ALPHAU	model FRL angle-of-attack uncorrected for sting/ balance deflections, degrees
β	BETA	model FRL angle-of-sideslip, degrees
	BETA1	angle of side slip uncorrected for tunnel flow angularity
β_F	BF	FT probe-indicated orbiter angle-of-sideslip WRT the FRL, degrees
β_F/β	BF/B	ratio of FT probe-indicated orbiter β to model β
β_{FT}	BFP	FT probe local angle-of-sideslip WRT the probe centerline, degrees
β_i		indicated model sideslip angle, degrees
β_u	BETAU	angle-of-sideslip uncorrected for sting/balance deflections, degrees
Δ		increment
Δ_α		flow angularity correction to alpha, degrees
Δ_β		flow angularity correction to beta, degrees
Δ_{p_i}		differential pressure at i, psf
ψ	PSI	angle of yaw, degrees
ϕ	PHI	angle of roll, degrees
	PHII	sting roll angle, degrees
ρ		mass density, kg/m^3, $slugs/ft^3$

Reference & C. G. Definitions

MRP	moment reference point
XMRP	moment reference point on X axis
YMRP	moment reference point on Y axis
ZMRP	moment reference point on Z axis

SUBSCRIPTS

A	average of left and right ADS probes
ADP	air data probe
ADS	air data system
b	base
FT	flight test (probe)
i	variable for tap number
ℓ	local condition in front of ADS probe shock wave (same as 1)
L	ADS probe mounted on left-hand side of model
R	ADS probe mounted on right-hand side of model
S	static condition
T	total conditions
u	uncorrected value
X	ADS side probe dummy index which can represent left side (L), right side (R), average of left and right (A), or data processed as taken (X)
∞	freestream
1	local conditions in front of the ADS probe shock wave (same as ℓ)
2	condition behind ADS probe shock wave

INTRODUCTION

This report presents information and results relating to air data system calibration test OA232 of the 0.10-scale space shuttle orbiter forebody model 99-0 in the AEDC 16-T Propulsion Wind Tunnel.

The objective of these tests was to provide a transonic calibration of the ADS and FT probe systems, i.e., to measure probe-sensed pitot and static pressure errors, determine local angle of attack, and determine the effect of probe scale and location. Two alternate air data systems were also evaluated: namely, a flush port system in the forward fuselage (SEADS) and instrumented RCS thruster chambers.

To achieve the test objectives, Rosemount, Inc. supplied two 0.2-scale replicas of the vehicle probes, including a compensated 0.10-scale side probe equipped to measure only static pressure.

All of the side probes were manufactured to be interchangeable on either side of the model, with all static taps located at the 0.1-scale coordinates.

The model utilized for these tests was a high-fidelity representation of the orbiter vehicle 102 forebody, with RCS thruster cavities simulated and a flush-port alternate air data system. The thermal protection system (TPS) tiles were not simulated on this model, for the reason that previous tests with tiled and smooth model surfaces exhibited negligible effects on ADS measurements.

REMARKS

During the course of testing, several anomalies occurred which, in some cases, affected the quality of the final data. These can be summarized as follows:

1. Pressure tap #114 was inadvertently plugged for runs 159 through 178.

2. Pressure tap #25 developed a leak and was bad for runs 146 through 281.

3. During runs 52 and 53, there were several pressures which were overrange at various alphas: Numbers 71 - 80, and 82.

4. Due to long pressure stabilization times, a new pressure hookup was made after run 149. Three transducers were removed to eliminate excess volume: DP98, DP104 and DP105 (reference Figure 2g). Since we no longer measured these 3 quantities, the data reduction program was modified to calculate these differential quantities based on the remaining individual measurements of each probe pressure.

CONFIGURATIONS INVESTIGATED

The model tested was a 0.10-scale replica of the orbiter vehicle 102 forebody. Orbiter lines were duplicated from the nose back to Fuselage Station 670. Aft of Station 670 the model was ogive-faired to the sting. The aft closure terminated at Station 985.5 with an 8.8-inch diameter sting clearance hole. The thermal protection system (TPS) tiles which are located on the outer surface of the orbiter, were not simulated on this model. Windshield recesses and cavity vent ports were duplicated.

The model was comprised of four, 0.6-inch thick cast aluminum shell sections with a 0.25-inch thick coating of epoxy which provided the outer contours. The four sections were the nose, two center sections and the aft closure section. Two 3-inch thick bulkheads in the second section supported the balance sleeve. Adjoining sections were connected via rims to which they were bolted. The total model weight was 705 pounds.

A pair of ADS side probes were tested which were 0.2-scale replicas of the vehicle probes, including compensating contouring in the vicinity of the static pressure taps. Due to the small size of the probes all pressure instrumentation could not be included in each probe. Therefore, one probe contained only the pitot and static pressure measurements and the other probe contained the upper and lower flow angle sensors. See Figures 2d and 2e.

These probes were tested at two longitudinal locations, i.e., a forward position with the static tap at a point corresponding to that of a 0.1-scale probe and an aft position with the probe tip at a point

corresponding to that of a 0.1-scale probe. Separate mounting blocks were employed to attain these locations. The probes could be interchanged between left and right sides of the model.

A third, single probe, built to 0.1-scale and containing only static pressure instrumentation mounted in either the left hand or right hand "new forward position" receptacles. See Figure 2c.

A 0.36-scale version of the flight test probe was mounted from the nose of the model at a nose-down incidence of 5°, using a 14-inch long boom. The probe was capable of sensing pitot and static pressures along with pressures indicative of local angles of attack and sideslip. The static pressure tap was located at 0.10 of the full scale dimension from the orbiter nose. See Figure 2b. The ADS pressure schematic is shown in Figure 2g.

RCS thruster nozzles were simulated at 16 places on the forebody. The inside end of each nozzle was instrumented with a single pressure tap as a possible air data sensor.

Flush static pressure taps, located at 92 locations on both sides of the forebody, served as additional air data sensors. Figure 2f depicts the locations of these taps and Table IV summarizes the tap coordinate values.

The following nomenclature was used to designate model components:

Nomenclature	Description
B_{74}	orbiter 102 forebody simulated back to fuselage station 670
C_{16}	orbiter vehicle 102 canopy
N_{108}	RCS nozzle thruster cavities in the orbiter forebody. Each thruster was static pressure-instrumented.
PR_4	0.36-scale flight test probe (FT)
PR_7	0.2-scale air data probe with pitot and static pressure orifices (0.2P/S)
PR_8	0.2-scale air data probe with angle-of-attack pressure orifices (0.2A)
PR_{14}	0.1-scale air data probe with static pressure orifices only (0.1S)
VT_{18}	forward RCS vents, one on each side of the orbiter forebody
VT_{19}	cabin vents, one on each side of the orbiter forebody

Dimensional data for the above components may be found in Table III of this report.

The following system of abbreviated configuration symbols will be used to describe the probes listed above, and their mounting locations on the model:

Probe Symbol	Description
FT	PR_4 - 0.36-scale flight test probe
0.2P/S	PR_7 - 0.2-scale pitot-static ADP
0.2A	PR_8 - 0.2-scale angle-of-attack ADP
0.1S	PR_{14} - 0.1-scale compensated static ADP

CONFIGURATIONS INVESTIGATED (Concluded)

ADS Probe Mounting Block Symbol and Number	Description
LA #3	L. H. ADP mounting block-aft position
LFN #5	L.H. forward position - new block
LFO #1	L.H. forward position - old block
RA #4	R. H. ADP mounting block-aft position
RFN #6	R. H. forward position - new block
RFO #2	R. H. forward position - old block

NOTE: Any of the three compensated air data probes (PR_7, PR_8, or PR_{14}) can be mounted in any of the above six blocks.

INSTRUMENTATION

Pressure Measurements

All pressures from the model, plus the tunnel bellmouth total pressures, were measured on the facility-supplied P^2 B system located beneath the test section. Pressures were routed to the P^2 B transducers via about 80 feet of 1/8-inch I.D. plastic tubing, and connected to either ±5 psid or ±15 psid heads.

The P^2 B transducers were calibrated during the test against a Datametrics Quartz manometer which in turn was calibrated against a primary pressure standard calibrator which is traceable to the National Bureau of Standards.

Balance Measurements

Aerodynamic forces acting on the model were measured on the Rockwell four-component strain gauge-instrumented sting W-1170S-500. Loads were applied in the normal and side force directions to establish the strain gauge deflection sensitivities. This information was then used to compute support deflections due to running loads which were added to the sting centerbody pitch angle to obtain angle-of-attack.

Angle Measurements

A model-mounted, pendulum-type transducer was also used to measure model incidence, and was calibrated for either upright or inverted mounting.

TEST FACILITY DESCRIPTION

The AEDC PWT 16-Ft. Transonic Tunnel (Propulsion Wind Tunnel, Transonic 16T) is a continuous-flow closed-circuit tunnel capable of operation within a Mach number range of 0.20 to 1.60. The tunnel can be operated within a stagnation pressure range of 120 to 4000 psfa depending upon the Mach number. The stagnation temperature can be varied from an average minimum of about 80 to a maximum of 160°F as a function of cooling water temperature. Using a special cooling system of mineral spirits, liquid nitrogen, and liquid air, the stagnation temperature range can be varied from +30 to -30°F. Supersonic velocities are obtained by use of flexible-wall, Laval type nozzles.

The test section is 16-ft. square (in cross section) and 40-ft. long. The entire test section and supporting structure is constructed as a separate unit, called the test section cart, and is removable from the tunnel circuit. The test section carts may be moved to the model installation building where the test article and associated equipment are installed.

Two 40-ft. long test section carts are available for testing throughout the design temperature range. These carts are each 20-ft. long and are used in pairs to form the 40-ft. long test section. Each cart may be used in either the forward or aft position in the test section.

The test section is completely enclosed in a plenum chamber which can be evacuated, allowing part of the tunnel main flow to be removed

through the test section perforated walls, thereby unchoking the test section at near sonic speeds and alleviating wall interference effects.

TEST PROCEDURE

Before the tests began, calibration and check-out of all model pressure instrumentation were performed at AEDC. A total of 121 pressure transducers were calibrated. All pressure lines were identified, hooked up, and then leak and continuity checked prior to start of the test.

Rockwell International conducted a thermal and linearity check on the W-1170-500 balance assembly before the balance was shipped to AEDC. A complete calibration was performed with the model mounted on the balance in the 16-S cart at the facility. Load holes were provided in both the model and the "dummy balance" portion of the strain gauged sting. Loadings were performed up to the maximum expected values and deflections of the sting and balance were recorded.

A model-mounted pendulum type angle transducer was calibrated by AEDC prior to the test, with the final calibration in the tunnel against a clinometer on the model leveling plate.

The model was installed in the 16-T #2 cart using the Rockwell-supplied W-1170 instrumented sting, W-1170-5 7-1/2° adapter and the #S-5.533M-123.26-9.125M sting supplied by the facility. See Figure 2a. All electrical cables and pressure tubes were routed from the model on top of the sting and out of the tunnel through the model support.

Provision for checking the model pitch and roll level was by use of a three-legged platform resting in receptacles in the top of the second section of the model. Yaw offset was measured with the use of a transit and the centerline scribed longitudinally on the model.

TEST PROCEDURE (Concluded)

Just prior to test start, with all instrumentation hooked up, a complete leak and continuity check was performed on all model, probe, and reference pressures for the starting configuration.

Tunnel upflow and crossflow angles were determined by making pitch runs at each Mach number with the model rolled on the balance, first 0°, then 180°. The difference in pressures measured at flush taps 2 and 9, when plotted versus angle-of-attack for both roll conditions, yielded the upflow correction. The crossflow corrections were made using flush taps 5 and 6 and plotted versus beta.

The summary of test conditions is presented in Table I. The entire test program is presented in Table II.

DATA REDUCTION

Data measured and recorded during test OA232 consisted of:

1. Tunnel freestream conditions and parameters
2. Force balance data
3. Model pitch and yaw attitudes
4. ADS side probe pressures
5. Model surface static pressures
6. FT probe pitot, static, and angle pressures

Tunnel freestream conditions and parameters were reduced using AEDC standard data reduction techniques.

Four-component force balance data were also reduced using AEDC standard data reduction techniques, to provide corrections to angle-of-attack and sideslip due to sting deflections under load. Balance forces and moments were applied to the sting/support deflections for determination of model pitch and yaw attitudes.

Adjustments were made to pitch and yaw angles for tunnel upflow and crossflow based upon the results of $\phi = 0^{o}$ and 180^{o} runs. These adjustments are presented as $\Delta\alpha$ and $\Delta\beta$ in Table V. The basic form of the correction to α and β was: $\alpha = \alpha_i + \Delta\alpha$ and $\beta = \beta_i + \Delta\beta$.

Tunnel flow conditions were adjusted by the correction factors determined from the most recent tunnel surveys.

All probe and model pressures were reduced to standard pressure coefficient form.

It is these data which are documented in this report.

RESULTS AND DISCUSSION

In general, all test objectives were successfully attained. A discussion of these test results with a complete summary of plotted data can be found in Reference 7.

REFERENCES

1. Rockwell/Space Division Report #SD77-SH-0138, "Pretest Information for Test OA232 of the 0.10-Scale Orbiter Forebody Model 99-0 in the AEDC 16T propulsion Wind Tunnel," dated October 14, 1976.

2. Rockwell/Los Angeles Division Report #NA-76-663, "Structural Analysis of the SSV Model 99-0," dated September 7, 1976.

3. Rosemount Calibration Report #97625, "Aerodynamic Calibration of Second Set of 0.2-Scale Wind Tunnel Models of Rosemount Model 859P Air Data Sensor," dated September 27, 1976.

4. Rosemount Calibration Report #67728A, "Aerodynamic Recalibration After Being Repaired for the Second Set of 0.2-Scale Wind Tunnel Models of the Rosemount Model 859P Air Data Sensor," dated June 28, 1977.

5. Rosemount Calibration Report #7771D, "Aerodynamic Calibration of a 0.1-Scale Wind Tunnel Model of Rosemount Model 859V Air Data Sensor Designed for Fuselage Mounting on the Space Shuttle," dated July 1, 1977.

6. Rosemount Calibration Report #127410, "Aerodynamic Performance of a 0.36-Scale Model of the 92AF Flight Test Air Data Boom for use Ahead of a 0.36-Scale Model of the Space Shuttle Orbiter," dated December 10, 1974.

7. Rockwell/Space Division Report #SD75-SH-0038 Rev. B," Orbiter Air Data System Substantiation Report," by H. August, A.S. Dean, A. L. Mena, G. A. Wibbert, dated December, 1978.

TABLE I.

TEST : 0A232 DATE : 2-28-78

TEST CONDITIONS

MACH NUMBER	REYNOLDS NUMBER (per unit length)	DYNAMIC PRESSURE (pounds/sq. ft.)	STAGNATION TEMPERATURE (degrees Fahrenheit)
0.2	2.3×10^{-6}	100	85
0.4	2.3×10^{-6}	200	90
0.6	3.3	420	100
0.6	5.0	630	100
0.7	3.6	520	110
0.8	3.9	620	
0.85	4.0	670	
0.90	4.1	710	
0.90	2.0	350	
0.95	4.2	750	
0.98	4.2	770	
1.05	3.8	730	
1.10	3.9	750	
1.15	3.9	770	
1.20	3.9	790	
1.20	2.0	400	

BALANCE UTILIZED: _____

	CAPACITY:	ACCURACY:	COEFFICIENT TOLERANCE:
NF	_____	_____	_____
SF	_____	_____	_____
AF	_____	_____	_____
PM	_____	_____	_____
RM	_____	_____	_____
YM	_____	_____	_____

COMMENTS:

TABLE I. (Concluded)

TEST : 0A232 DATE : 2-28-78

TEST CONDITIONS

MACH NUMBER	REYNOLDS NUMBER (per unit length)	DYNAMIC PRESSURE (pounds/sq. ft.)	STAGNATION TEMPERATURE (degrees Fahrenheit)
1.30	3.6	750	110
1.40	3.6	750	↓
1.45	3.5	750	↓
1.55	3.2	680	↓
1.55	2.0	430	↓

BALANCE UTILIZED: Rockwell W-1170-500 Instrumented Sting

	* CAPACITY:	ACCURACY:	COEFFICIENT TOLERANCE:
NF	±8000 lbs.		
SF	±4000 lbs.		
AF			
PM			
RM			
YM			

COMMENTS: * Based on a load at M.S. 60.0 to produce 30 PSI stress at the strain-gauged sections.

AMS 010

TABLE II

AEDC 16T TF431

TEST: 0A232 — DATA SET/RUN NUMBER COLLATION SUMMARY — DATE: 3/2/78

DATA SET IDENTIFIER	CONFIGURATION	ϕ	SCHD. α	SCHD. β	PROBES .1S	PROBES 2P/S	PROBES .2α	PROBES FTP	NO. OF RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE)
SVR 001	99-0 + FR22		A		OFF	LFO	RFO	ON	6	.20: 37; .25: 41; .4: 36; .6: 33; .7: 32; .8: 31
02		180	B						1	.6: 35
03			D						1	.4: 42
04	99-0		A		LFN	RA	OFF	OFF	17	.20: 70; .25: 250; .4: 77; .6: 49; .7: 257; .8: 115; .85: 114; .9: 52; .95: 108; .98: 105; 1.05: 102; 1.1: 81; 1.15: 84; 1.2: 56; 1.3: 88; 1.4: 97; 1.55: 59
05	RN LOW		A						3	.9: 54; 1.2: 55; 1.55: 60
06			A	2					17	.20: 71; .25: 251; .4: 78; .6: 50 (1); .7: 258; .8: 116; .85: 113; .9: 53; .95: 109; .98: 106; 1.05: 103; 1.1: 82; 1.15: 85; 1.2: 57; 1.3: 89; 1.4: 98; 1.55: 59
07		180	E						16	.20: 72; .25: 252; .4: 79; .6: 80; .8: 117; .85: 112; .9: 111; .95: 110; .98: 107; 1.05: 104; 1.1: 83; 1.15: 86; 1.2: 87; 1.3: 90; 1.4: 99; 1.55: 101
08			C						7	1.3: 91; 1.32: 92; 1.34: 93; 1.36: 94; 1.38: 95; 1.4: 96; 1.45: 100
09			F						14	.20: 253; .4: 254; .6: 255; .7: 256; .8: 280; .9: 259; .95: 279; .98: 278; 1.05: 281; 1.1: 260; 1.15: 277; 1.2: 276; 1.3: 261; 1.55: 262
10			C	2					11	1.22: 275; 1.24: 274; 1.26: 273; 1.28: 272; 1.3: 271; 1.32: 270; 1.34: 269; 1.36: 268; 1.38: 267; 1.4: 265; 1.45: 266/264
11			A		OFF	LA	RA		17	.20: 136; .25: 244; .4: 134; .6: 132; .7: 129; .8: 230; .85: 232; .9: 149; .95: 236; .98: 147; 1.05: 238; 1.1: 138; 1.15: 240; 1.2: 141; 1.3: 143; 1.4: 145; 1.55: 242
12			A	2					17	.20: 137; .25: 245; .4: 135; .6: 133; .7: 130; .8: 231; .85: 233; .9: 235; .95: 237; .98: 148; 1.05: 239; 1.1: 139; 1.15: 241; 1.2: 142; 1.3: 144; 1.4: 146; 1.55: 243
13		180	E						1	.7: 131
14			A		RFN	OFF	LA		18	.20: 188; .4: 190; .6: 159; .7: 186; .8: 193; .85: 214; .9: 195; .95: 212; .98: 165; 1.05: 167; 1.1: 169; 1.15: 171; 1.2: 173; 1.22: 175; 1.24: 176; 1.3: 200; 1.4: 207; 1.55: 210
15			A	2					16	.20: 189; .4: 192; .6: 160; .7: 187; .8: 194; .85: 215; .9: 196; .95: 213; .98: 166; 1.05: 168; 1.1: 170; 1.15: 172; 1.2: 174; 1.3: 201; 1.4: 208; 1.55: 211
16			C						9	1.26: 197; 1.28: 198; 1.3: 199; 1.32: 202; 1.34: 203; 1.36: 204; 1.38: 205; 1.4: 206; 1.45: 209
17			A					ON	2	.20: 220; .25: 221
18			G						1	.4: 222
19			F						2	.6: 223; .7: 224
20			C						1	.8: 225
21	RN HI		A		LFN	RA	OFF	OFF	1	.6: 48

ANGLE SCHEDULES
A: -4, -2, 0, 2, 4, 6, 8, 10, 12, 14, 16, 18, 10°
B: -3, -1, 1, 3, 5, 7°
C: 8, 12, 16, 18°
D: 8, 10, 12
E: -2, 0, 2, 4, 6°
F: -2, 2, 6, 10, 14, 18, 10°
G: -4, -2, 0, 2, 4, 6, 10, 14, 18, 10°

1) DATA NOT ON TAPE

TABLE II Concluded

DATASET/RUN NUMBER COLLATION SUMMARY

DATASET IDENTIFIER 1ST CHARACTER	1ST IND VARIABLE	2ND IND VARIABLE	COEFFICIENT SCHEDULE									
A	MACH	ALPHA	BETA	CPSA	CPTA	CPAL	CPAU	RAX	AADS	CPITOT	P	Q
B	MACH	ALPHA	BETA	CPTF	CPSF	CPFA	CPFB	RAF	RBF	DP96	DP97	DP98
C	MACH	ALPHA	PT	P	Q	QC	BETA	PTA	PSA	PAU	PAL	RAX
D	MACH	ALPHA	BETA	CP1	CP2	CP3	CP4	CP5	CP6	CP7	CP8	CP9
E	MACH	ALPHA	BETA	CP10	CP11	CP12	CP13	CP14	CP15	CP16	CP19	CP20
F	MACH	ALPHA	BETA	CP17	CP21	CP22	CP23	CP24	CP25	CP26	CP43	CP44
G	MACH	ALPHA	BETA	CP46	CP47	CP48	CP49	CP50	CP51	CP52	CP53	CP54
H	MACH	ALPHA	CP55	CP56	CP57	CP58	CP27	CP28	CP29	CP30	CP31	CP32
I	MACH	ALPHA	CP35	CP36	CP37	CP38	CP39	CP40	CP41	CP42	CP33	CP34
K	MACH	ALPHA	CP69	CP70	CP71	CP72	CP73	CP74	CP75	CP76	CP77	CP78
M	MACH	ALPHA	BETA	CP79	CP80	CP81	CP82	CP83	CP84	CP85	CP86	CP87
N	MACH	ALPHA	BETA	CP88	CP89	CP90	CP91	CP92U	CP92L	CP93	CP94	CP95
Ø	MACH	ALPHA	BETA	CP111	CP112	CP113	CP114	CP115	CP116	CP117	CP118	CP119
P	MACH	ALPHA	BETA	CP120	CP121	CP122	CP123	CP124	RE			
Q	MACH	ALPHA	CP125	CP126	CP127	CP128	CP129	CP130	CP131	CP132	CP67	CP68
X	MACH	ALPHA	DP102	DP103	DP104	DP105	DP106	DP107	DP108			
Z	MACH	ALPHA	PC	ALFI	DALF	DPSI	CA	BETA1	PITOT	TT	TTR	PHII
1	MACH	ALPHA	BETA	PSXDEC	PTXDEC	PS1XDC	Q*X/QC	QCX/QC	PTA/PT	PSA/P	PS1X/P	QCOMP
3	MACH	ALPHA	BETA	PTFDEC	PSFDEC	PTF/PT	PSF/P	QCF/QC	PTF	PSF	PFA	PFB
4	MACH	ALPHA	BETA	AFP	BFP	DP99	DP100	DP101				

TABLE III. MODEL DIMENSIONAL DATA

MODEL COMPONENT: BODY - B_{74}

GENERAL DESCRIPTION: OV102 forebody (tile surfaces are not simulated). OV102 lines are simulated back to X_o670. From X_o670 to $X_o985.5$, the forebody is ogive-faired to the sting cavity.

MODEL SCALE: 0.100

DRAWING NUMBER: SS-A01733, BCD V70-30-940-01

DIMENSIONS:	FULL SCALE	MODEL SCALE
Length, In. (nose to boattail)	750.500	75.050
Max.Width @ X_o670 (including glove)	258.126	25.813
Max. Depth, In.	227.096	22.710
Fineness Ratio (length/max. width)	3.169	3.169
Area, $Ft.^2$		
Max. Cross-Sectional (@ X_o670, including glove)	314.474	3.145

TABLE III. MODEL DIMENSIONAL DATA (Continued)

MODEL COMPONENT: CANOPY - C_{16}

GENERAL DESCRIPTION: OV102 - canopy.

MODEL SCALE: 0.100

DRAWING NUMBER: SS-A01733, BCD V70-30-950-01 (VC70-000002B)

DIMENSIONS:	FULL SCALE	MODEL SCALE
Length, In. (X_o432.0798 to X_o670)	237.920	23.792
Max. Width, In. (@ X_o594)	194.067	19.407
Max. Depth, In. (@ X_o492)	59.790	5.979
Fineness Ratio (length/max. width)	1.226	1.226
Area, $Ft.^2$		
Max. Cross-Sectional @ X_o520	45.66	0.4566

TABLE III. MODEL DIMENSIONAL DATA (Continued)

MODEL COMPONENT: FORWARD RCS NOZZLES - N_{108}

MODEL SCALE: 0.100

GENERAL DESCRIPTION: Three forward-firing nozzles -X; three up-firing nozzles +Z; four down-firing nozzles, two on each side -Z; four side-firing nozzles, two on each side ±Y; and two down-firing vernier nozzles, one on each side -Z. OML is for trajectory 14414.1C.

DRAWING NO: VL70-008725A (4-21-76), MC467-0028-001 (Figure 2.0), Vernier Layout L18241

THRUSTER NUMBER	NOZZLE POSITION AND IDENTIFICATION		THRUSTER MOUNTING FACE (base) INCHES, FULL SCALE			THRUSTER NOZZLE ℄ PIERCES OML AT: Inches, full scale			Thruster ℄ distance, base to OML pierce pnt, infs
			X_o	Y_o	Z_o	X_o	Y_o	Z_o	
112	Forward	L.	327.277	-14.654	392.955	305.117	-14.654	392.995	22.160
122	Firing	℄	327.383	0.0	394.450	305.049	0.0	394.450	22.334
132	-X	R.	327.277	+14.654	392.955	305.117	+14.654	392.955	22.160
115		L.	350.925	-14.394	399.588	350.925	-14.394	414.464	13.876
125	Up Firing	℄	350.917	0.0	400.818	350.917	0.0	414.527	13.709
135	+Z	R.	350.925	+14.394	399.588	350.925	+14.394	414.464	13.876
116/136	Down Firing	L/R	333.840	±49.814	372.350	333.840	±62.578	355.412	21.209
126/146	-Z	L/R	348.440	±54.839	373.556	348.440	±67.036	357.371	20.263
113	Upper Side	L.	362.671	-55.631	373.728	362.671	-69.500	373.728	13.869
134	Firing ±Y	R.		+55.631			+69.500		
123	Lower Side	L.	364.708	-58.579	359.250	364.708	-71.645	359.250	13.066
144	Firing ±Y	R.		+58.579			+71.645		
157	Vernier	L.	324.350	-53.830	357.900	324.350	-59.697	350.115	9.748
158	-Z	R.		+53.830			+59.697		

TABLE III. MODEL DIMENSIONAL DATA (Continued)

MODEL COMPONENT: PR_4

GENERAL DESCRIPTION: Flight Test Nose Boom

MODEL SCALE: 0.360 Nose boom and 0.100 nose boom adapter

DRAWING NUMBER: SS-A01664

DIMENSIONS:	FULL SCALE	MODEL SCALE
Overall Length, along centerline to Sta. X_o = 23.500 (In.)	218.65	21.865
Max. Dia., (Boom), In.	2.0	0.72
Max. Dia., (Boom Adapter), In.	8.75	0.875
Angle of Incidence, Deg.	- 5.0	- 5.0
Area - $In.^2$		
Max. Circular Cross-Sectional (Boom)	12.75	1.629
Max. Circular Cross-Sectional (Boom Adapter)	240.5	2.405

TABLE III. MODEL DIMENSIONAL DATA (Continued)

REVISED: 12-9-76

MODEL COMPONENT: PROBE - PR7

GENERAL DESCRIPTION: Air data probe which is strut-mounted on either side of the orbiter nose. The probe has pitot-static pressure instrumentation and a non-instrumented temperature sensor mockup.

MODEL SCALE: 0.20

DRAWING NUMBER: SS-A01614, Rosemount 00856-1913, 00859-0109

DIMENSIONS: (Nominal Design Values)		FULL SCALE	MODEL SCALE
Length, (Probe tip to temp. sensor base), in.		10.99	2.198
Overall length, in.		14.35	2.870
Probe barrel diameter, in.		1.00	0.200
Overall height, in.		7.25	1.450
Probe tip to static pressure ports, in.		2.70	0.540
Height, TPS surface to probe $\mathbb{C}$, in.		5.00	0.500
Strut max. thickness, in.		0.65	0.130
Strut chord length, in.		4.50	0.900
Strut sweep angles (L.E. & T.E.), deg.		30.00	30.00
Probe barrel max. cross-sectional area, $in.^2$		0.7854	0.0314
Location of probe $\mathbb{C}$ and	X_o	291.67	29.167
Static port intersection: in.	Y_o	$\pm$ 53.18	$\pm$ 5.318
	Z_o	320.46	32.046

The centerline of the probe is at a -10^o incidence to the model Fuselage Reference Plane, as measured in a butt plane, with positive being nose-up. The probe $\mathbb{C}$ is positioned parallel to the forebody local OML.

TABLE III. MODEL DIMENSIONAL DATA (Continued)

REVISED: 12-9-76

MODEL COMPONENT: PROBE - PR8

GENERAL DESCRIPTION: Air data probe which is strut-mounted on either side of the orbiter nose. The probe is instrumented with two flush taps for angle-of-attack indication. Temperature sensor is in mockup only.

MODEL SCALE: 0.2

DRAWING NUMBER: SS-A01614, Rosemount 00856-1913, 00859-0108

DIMENSIONS: (Nominal Design Values)		FULL SCALE	MODEL SCALE
Length, (Probe tip to Temp. sensor base), in.		10.99	2.198
Overall length, in.		14.35	2.870
Probe barrel diameter, in.		1.00	0.200
Overall height, in.		7.25	1.450
Height, TPS surface to probe ℄, in.		5.00	0.500
Strut max, thickness, in.		0.65	0.130
Strut chord length, in.		4.50	0.900
Strut sweep angles (L.E. & T.E.) deg.		30	30
Probe barrel max. cross-sectional area, $in.^2$		0.7854	0.0314
Location of a point 0.540 in. m.s. aft of probe tip on probe ℄:	X_o	291.67	29.167
	Y_o	± 53.18	± 5.318
	Z_o	320.46	32.046

The centerline of the probe is at a -10^o incidence to the model Fuselage Reference Plane, as measured in a butt plane, with positive being nose-up. The probe ℄ is positioned parallel to the forebody local OML.

TABLE III. MODEL DIMENSIONAL DATA (Continued)

MODEL COMPONENT: PROBE - PR_{14}

GENERAL DESCRIPTION: Air data probe which is strut-mounted on either side of the orbiter nose. The probe has compensated static pressure orifices and a non-instrumented temperature sensor mockup.

MODEL SCALE: 0.10

DRAWING NUMBER: Rosemount 00859-0149

DIMENSIONS: (Nominal Design Values)		FULL SCALE	MODEL SCALE
Length (Probe tip to temperature sensor base), in.		11.01	1.101
Overall length (including mounting base), in.		--	2.600
Probe barrel diameter, in.		1.00	0.100
Overall height (including mounting base), in.		--	1.350
Probe tip to static pressure ports, in.		2.70	0.270
Height, TPS surface to probe ℄, in.		5.00	0.500
Strut maximum thickness, in.		0.66	0.066
Strut chord length, in.		4.50	0.450
Strut sweep angles (L.E. & T.E.), deg.		30.00	30.00
Probe barrel maximum cross-sectional area, $in.^2$		0.7854	0.00785
Location of probe ℄ and static port intersection:	X_o	291.67	29.167
	Y_o	$\pm$ 53.18	$\pm$ 5.318
	Z_o	320.46	32.046

The ℄ of the probe is at a -10^o incidence to the model FRP, as measured in a butt plane (positive is nose-up). The probe ℄ is positioned parallel to the forebody local OML.

TABLE III. MODEL DIMENSIONAL DATA (Continued)

MODEL COMPONENT: VENT - VT_{18}

GENERAL DESCRIPTION: Oval-shaped RCS vents in orbiter 102 forebody. One vent on each side.

MODEL SCALE: 0.10

DRAWING NUMBER: SS-A01733

DIMENSIONS:		FULL SCALE	MODEL SCALE
Length, in.		4.90	0.49
Max. width, in.		4.00	0.40
Max. Depth, in.		6.20	0.62
Area			
Max. Cross-Sectional, $in.^2$		16.17	0.1617
Center of vent, in.	X_o	384.80	38.48
	Z_o	371.40	37.14

TABLE III. MODEL DIMENSIONAL DATA (Concluded)

MODEL COMPONENT: VENT - VT_{19}

GENERAL DESCRIPTION: Oval-shaped cabin vents in orbiter 102 forebody. One vent on each side.

MODEL SCALE: 0.10

DRAWING NUMBER: SS-A01733

DIMENSIONS:		FULL SCALE	MODEL SCALE
Length, in.		9.60	0.96
Max. width, in.		4.00	0.40
Max. depth, in.		6.20	0.62
Area			
Max. cross-sectional, $in.^2$		34.97	0.3497
Center of vent, in.	X_o	398.60	39.86
	Z_o	374.50	37.45

TABLE IV. PRESSURE TAP LOCATIONS

* Tap coordinates are actual measured values; all others are nominal design values.

TAP NUMBER	TYPE	MODEL SCALE, INCHES		
		X_o	Y_o L- R+	Z_o
1 *	Flush ADS and SEADS	23.586	-0.006	33.764
2	Flush ADS	27.60	0.00	30.286
3 *	↓	27.607	-4.053	32.613
4 *		27.590	4.104	32.602
5 *		27.608	-4.088	33.358
6 *		27.597	4.137	33.384
7 *		27.599	-4.041	34.101
8 *		27.592	4.083	34.112
9 *		27.590	0.005	37.977
10 *		29.606	-0.012	29.659
11 *		29.618	-4.985	32.985
12 *		29.589	5.026	32.978
13 *		29.612	-4.975	33.446
14 *		29.589	5.022	33.439
15 *		29.606	-4.943	34.328
16 *		29.588	4.987	34.331
17 *		29.202	-0.014	38.812
19 *		33.601	-6.331	33.694
20 *		33.595	6.388	33.694
21 *		37.600	-7.460	34.056
22 *		37.607	7.512	34.055
23		41.60	-8.423	34.56
24		41.60	+8.423	34.56
25		45.60	-9.235	35.75
26	↓	45.60	+9.235	35.75
27	RCS	32.728	-1.465	39.296
28	↓	32.728	0.0	39.445
29		32.728	1.465	39.296
30		35.093	-1.439	39.959
31		35.092	0.0	40.082
32		35.093	1.439	39.959
33		32.435	-5.383	35.790
34		32.435	5.383	35.790
35	↓	33.384	-4.981	37.235

TABLE IV. PRESSURE TAP LOCATIONS (Continued)

* Tap coordinates are actual measured values; all others are nominal design values.

TAP NUMBER	TYPE	MODEL SCALE, INCHES		
		X_o	Y_o L- R+	Z_o
36	RCS	33.384	4.981	37.235
37	↓	34.844	-5.484	37.356
38		34.844	5.484	37.356
39		36.471	-5.858	35.925
40		36.471	5.858	35.925
41		36.267	-5.563	37.373
42		36.267	5.563	37.373
43 *	OML @ probe static port	29.168	-4.677	32.065
44 *	↓	29.163	4.732	32.042
46 *	SEADS	23.609	0.0	33.471
47 *	↓	23.704	0.0	33.086
48 *		23.895	0.0	32.686
49 *		24.199	0.0	32.269
50 *		24.693	0.0	31.787
51 *		23.641	0.409	33.535
52 *		23.631	0.399	33.546
53 *		23.917	1.149	33.535
54 *		23.879	1.135	33.535
55 *		23.906	0.686	32.840
56 *		23.896	0.678	32.840
57 *		24.215	1.012	32.517
58 *	↓	24.185	1.013	32.522
67	Flush ADS	45.60	-9.238	33.50
68	↓	45.60	+9.238	33.50
69	Canopy	60.20	-9.03	46.30
70	↓	60.20	9.03	46.30
71		60.20	-8.02	47.32
72		60.20	8.02	47.32
73		60.20	-6.90	48.17
74		60.20	6.90	48.17
75		63.20	-8.34	47.00
76		63.20	8.34	47.00
77		63.20	-7.67	47.61
78	↓	63.20	7.67	47.61

TABLE IV. PRESSURE TAP LOCATIONS (Continued)

TAP NUMBER	TYPE	MODEL SCALE, INCHES		
		X_o	Y_o L- R+	Z_o
79	Canopy	66.20	-9.03	46.30
80		66.20	9.03	46.30
81		66.20	-8.02	47.32
82		66.20	8.02	47.32
83		66.20	-6.90	48.17
84		66.20	6.90	48.17
85	Flush ADS	26.71	-3.33	33.24
86		26.71	3.33	33.24
87		27.60	-3.10	31.06
88		27.60	3.10	31.06
89		39.20	-3.10	28.41
90		39.20	3.10	28.41
91		39.20	0.0	28.24
92u		26.71	0.0	37.34
92L		26.71	0.0	30.63
93		29.93	0.0	29.60
94		26.93	0.47	30.92
95		36.74	0.59	28.72
111		53.70	-10.420	37.40
112		53.70	+10.420	37.40
113		60.20	-10.571	40.50
114		60.20	+10.571	40.50
115		60.20	-10.562	34.56
116		60.20	+10.562	34.56
117		63.20	-10.573	43.50
118		63.20	+10.573	43.50
119		63.20	-10.569	38.00
120		63.20	+10.569	38.00
121		66.20	-10.575	40.50
122		66.20	+10.575	40.50
123	DFI	26.821	-3.653	32.724
124		26.821	+3.653	32.724
125		38.986	-7.815	37.163

TABLE IV. PRESSURE TAP LOCATIONS (Concluded)

TAP NUMBER	TYPE	MODEL SCALE, INCHES		
		X_o	Y_o L- R+	Z_o
126	DFI	38.986	+7.815	37.163
127	↓	26.885	-0.307	37.590
128		42.273	-0.183	44.412
129		55.350	0.0	50.036
130		26.802	-0.486	30.609
131		49.285	-0.952	27.725
132		62.192	0.0	27.432

TABLE V. SUMMARY OF FLOW ANGLE CORRECTIONS

M_∞	UPFLOW $\Delta\alpha$ (DEGREES)	CROSSFLOW $\Delta\beta$ (DEGREES)
0.2	+0.20	+0.11
0.25	0	+0.05
0.4	+0.05	+0.08
0.6	+0.06	-0.03
0.7	+0.06	0
0.8	0	+0.05
0.85	0	+0.11
0.9	0	+0.08
0.95	0	+0.03
0.98	0	+0.07
1.05	0	-0.02
1.10	+0.5	+0.04
1.15	+0.5	+0.06
1.20	0	+0.05
1.20 to 1.30	0	interpolate
1.30	0	0
1.30 to 1.40	interpolate	interpolate
1.4	-0.05	-0.07
1.55	+0.08	-0.13

$$\alpha = \alpha_1 + \Delta\alpha$$
$$\beta = \beta_1 + \Delta\beta$$

Notes:

1. Positive directions of force coefficients, moment coefficients, and angles are indicated by arrows
2. For clarity, origins of wind and stability axes have been displaced from the center of gravity

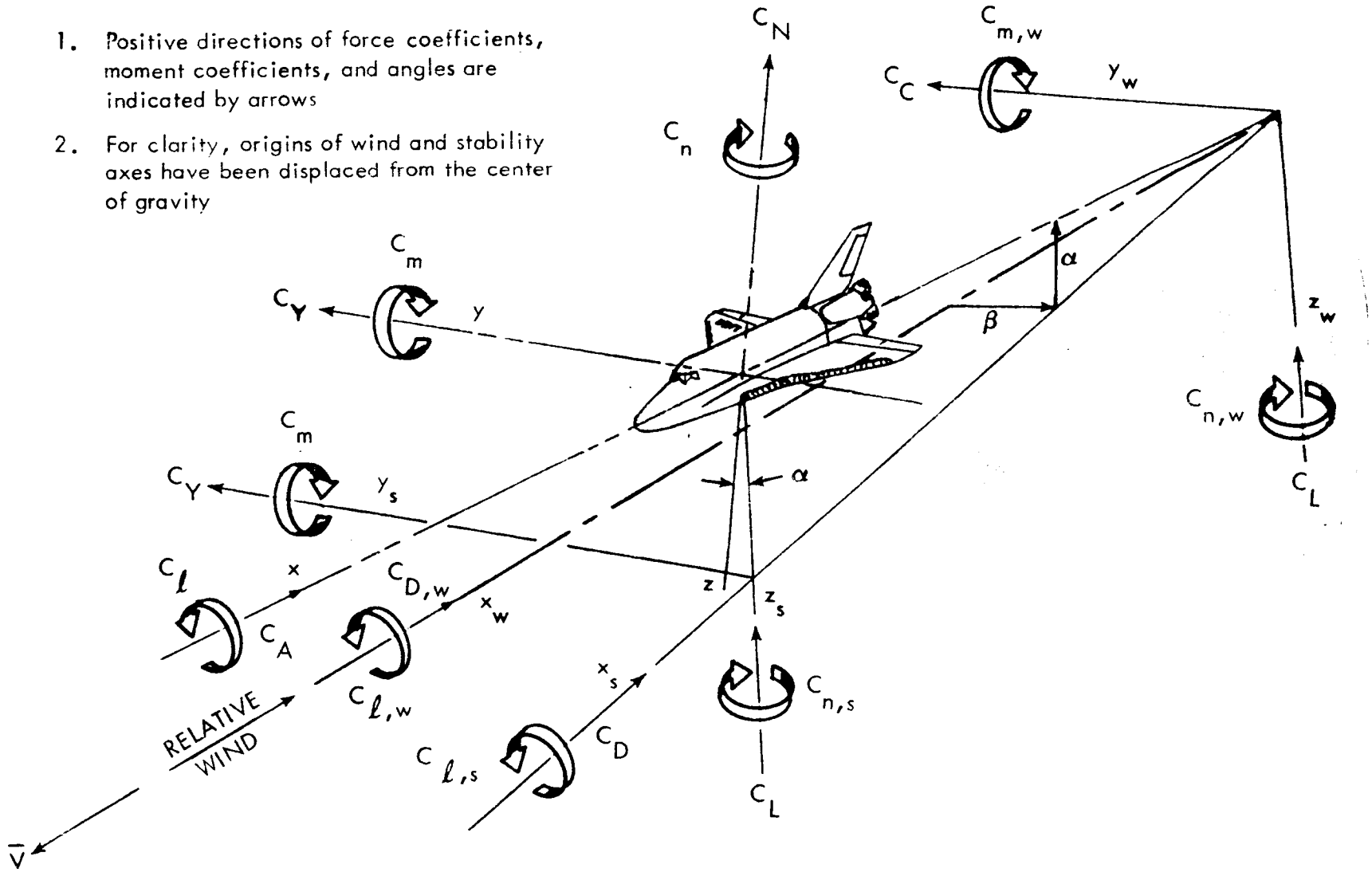
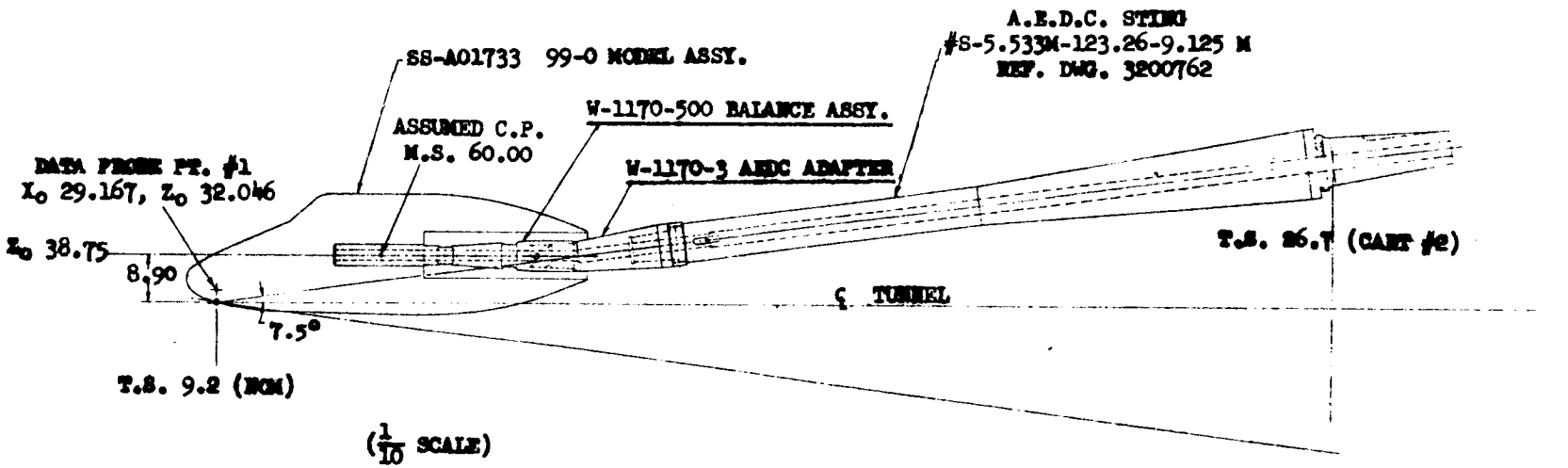


Figure 1. Axis systems.



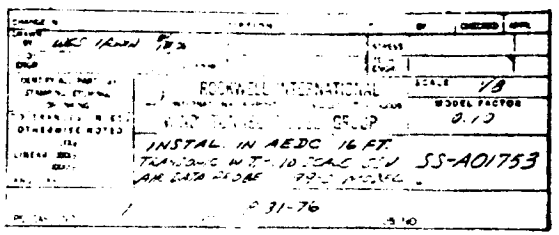
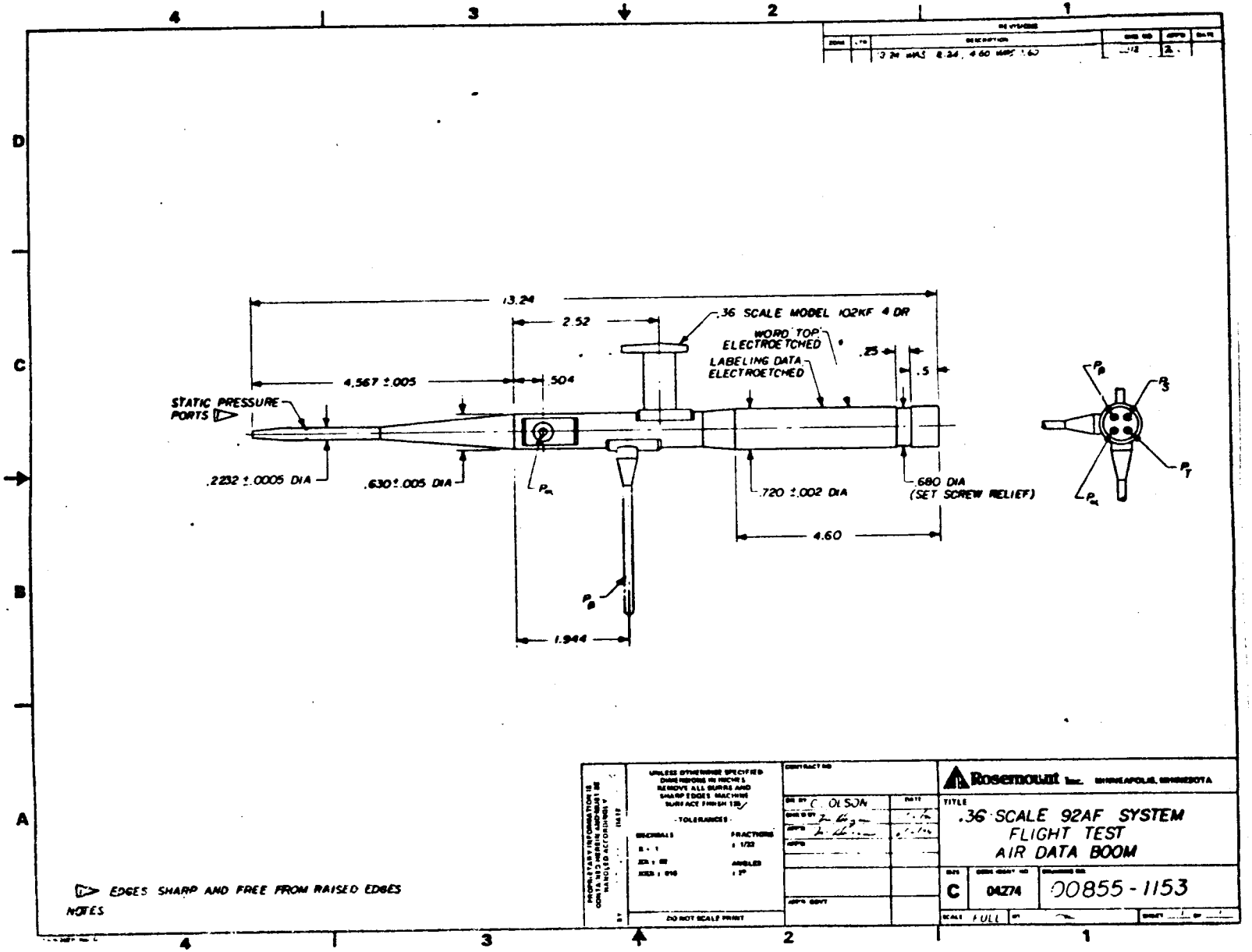
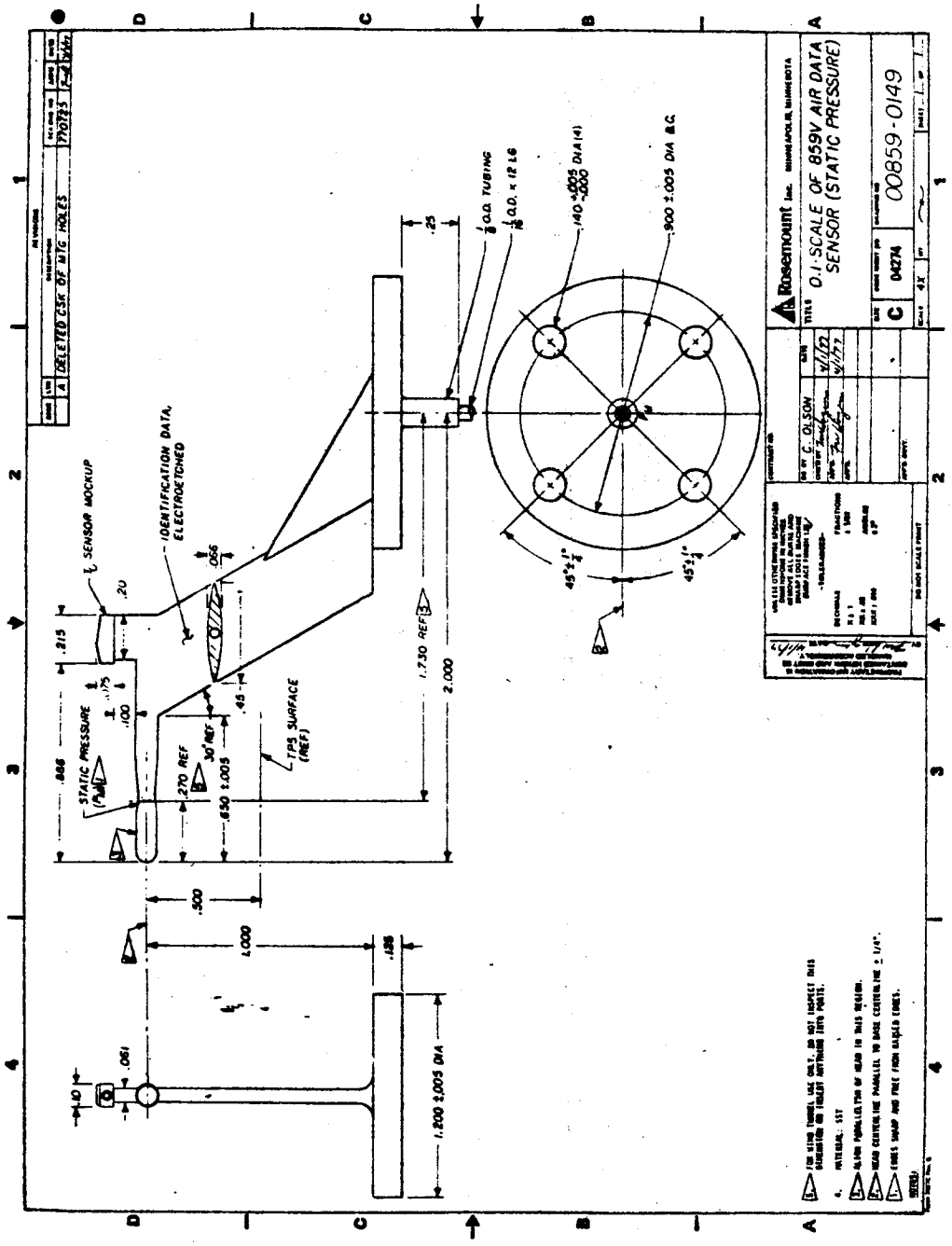


Figure 2. Model Installation [illegible]



b. 0.36-Scale 92AF Flight Test Air Data Boom
Figure 2. Continued.



0.10-Scale of 859V Air Data Sensor
Figure 8. Continued.

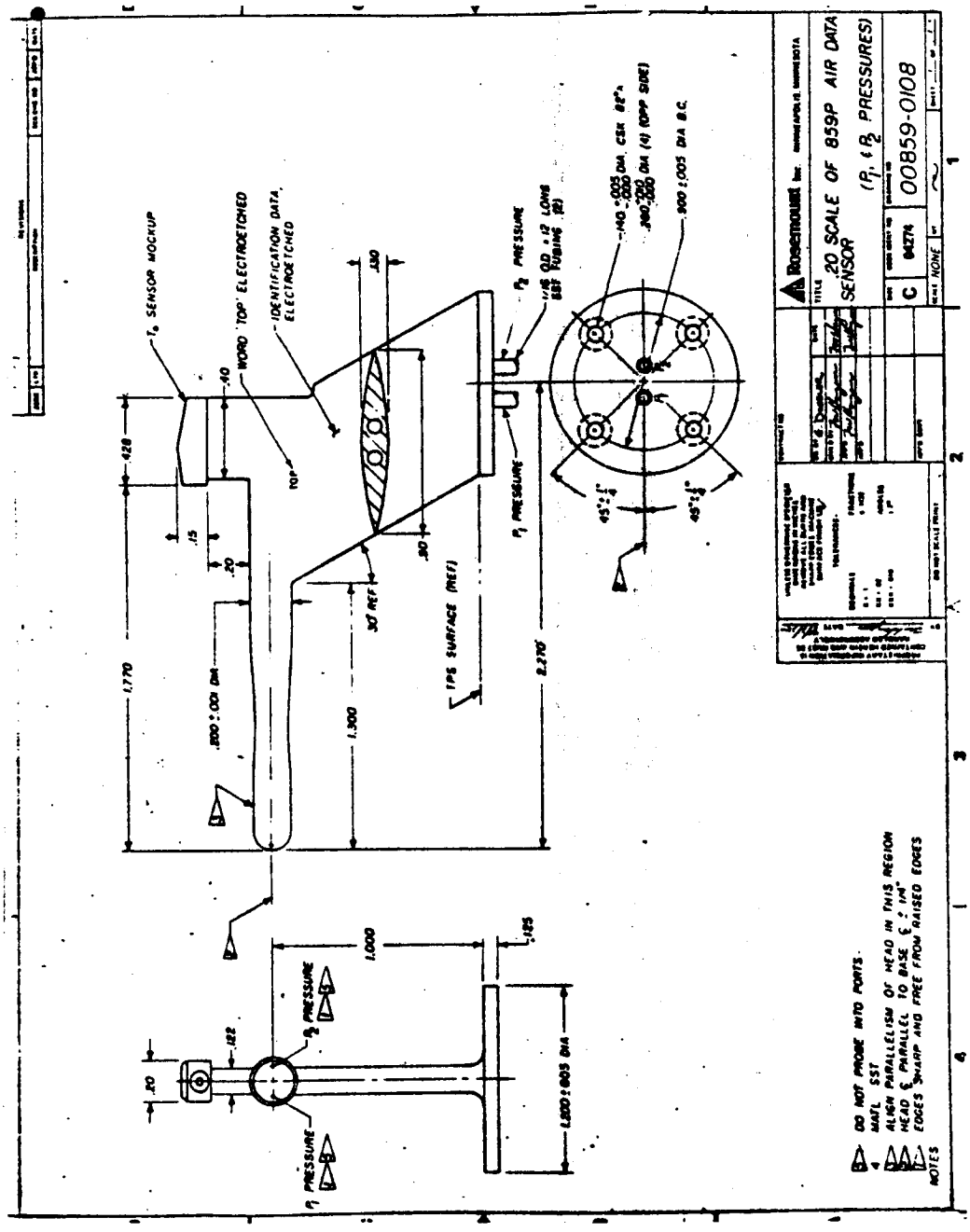
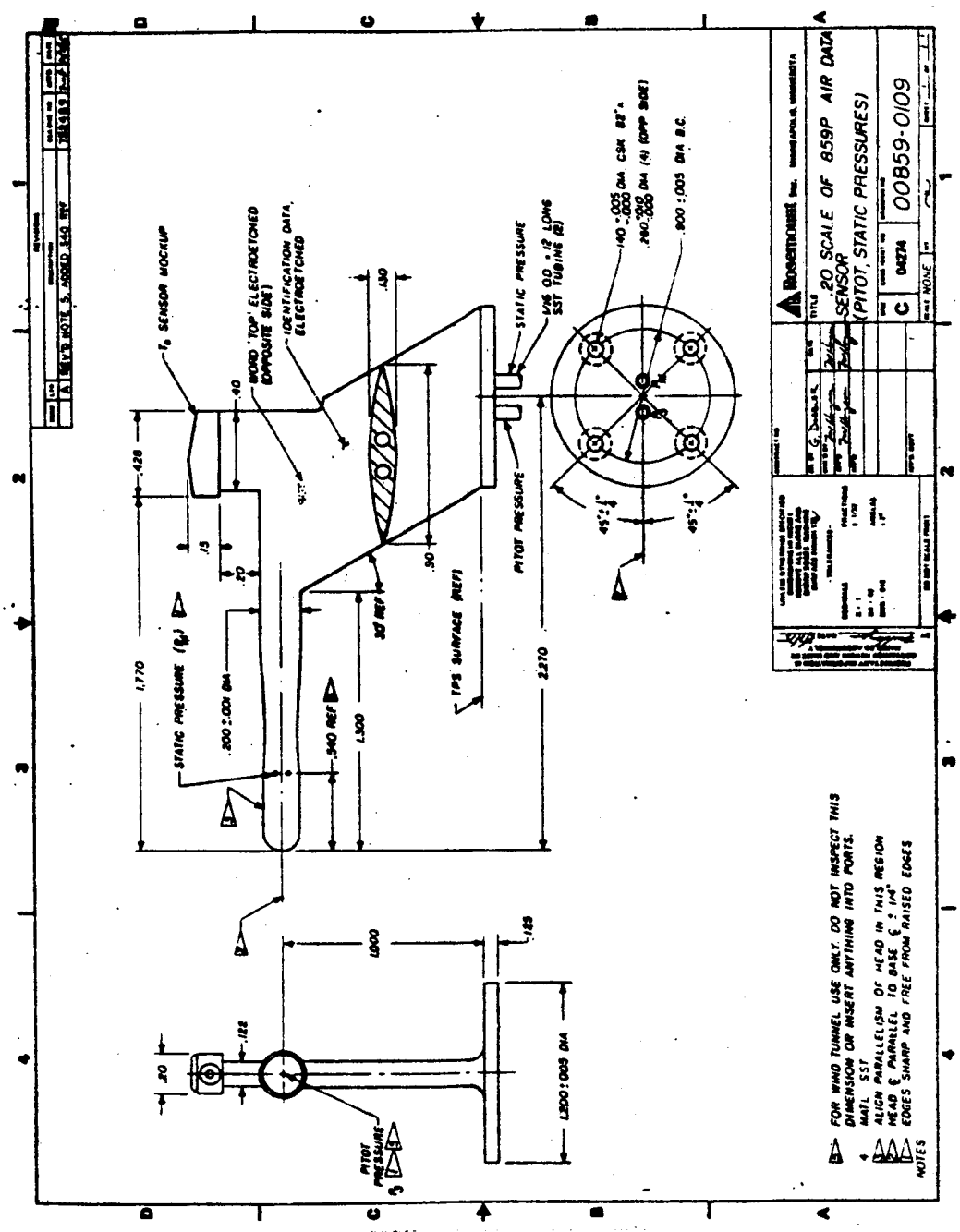
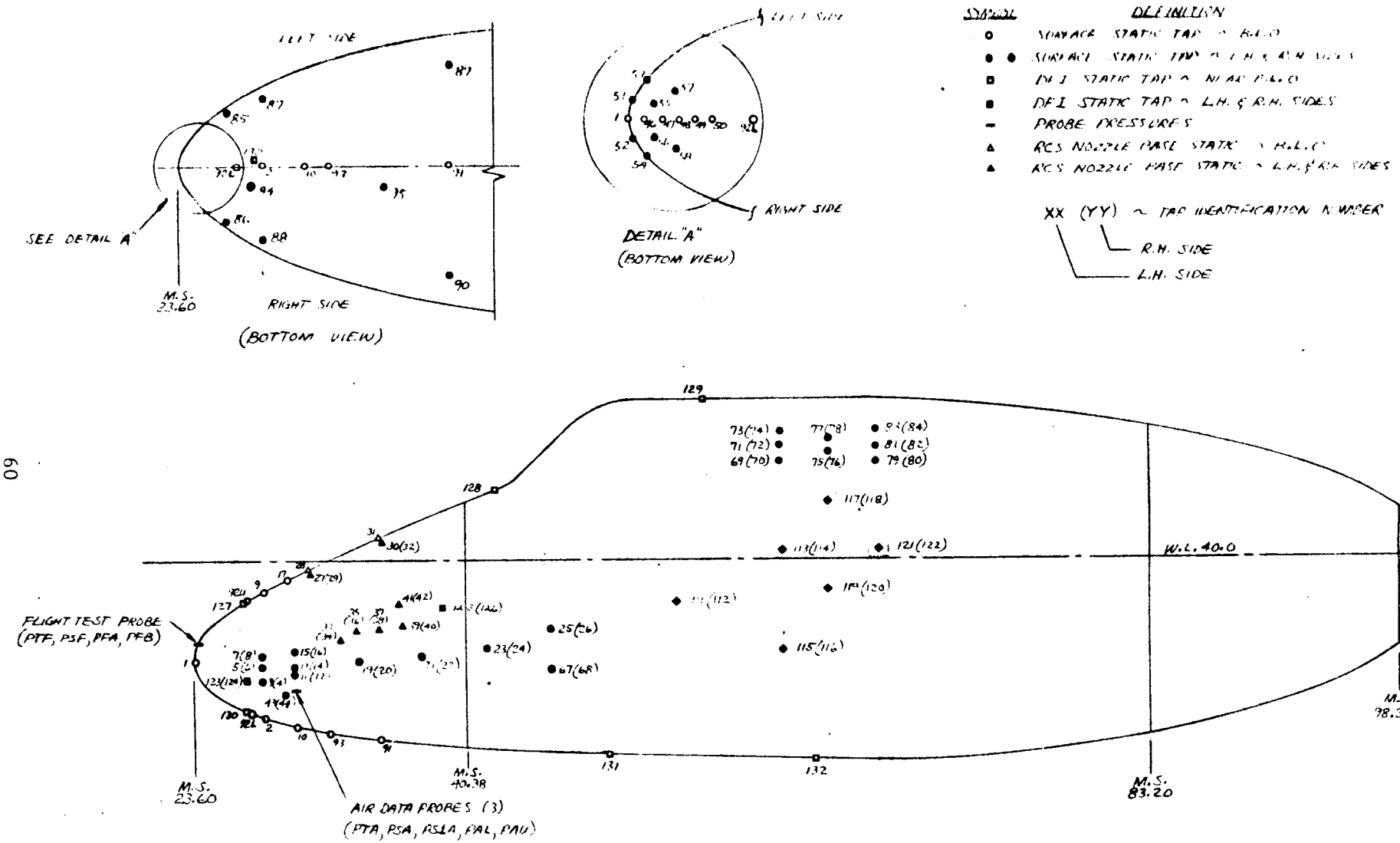


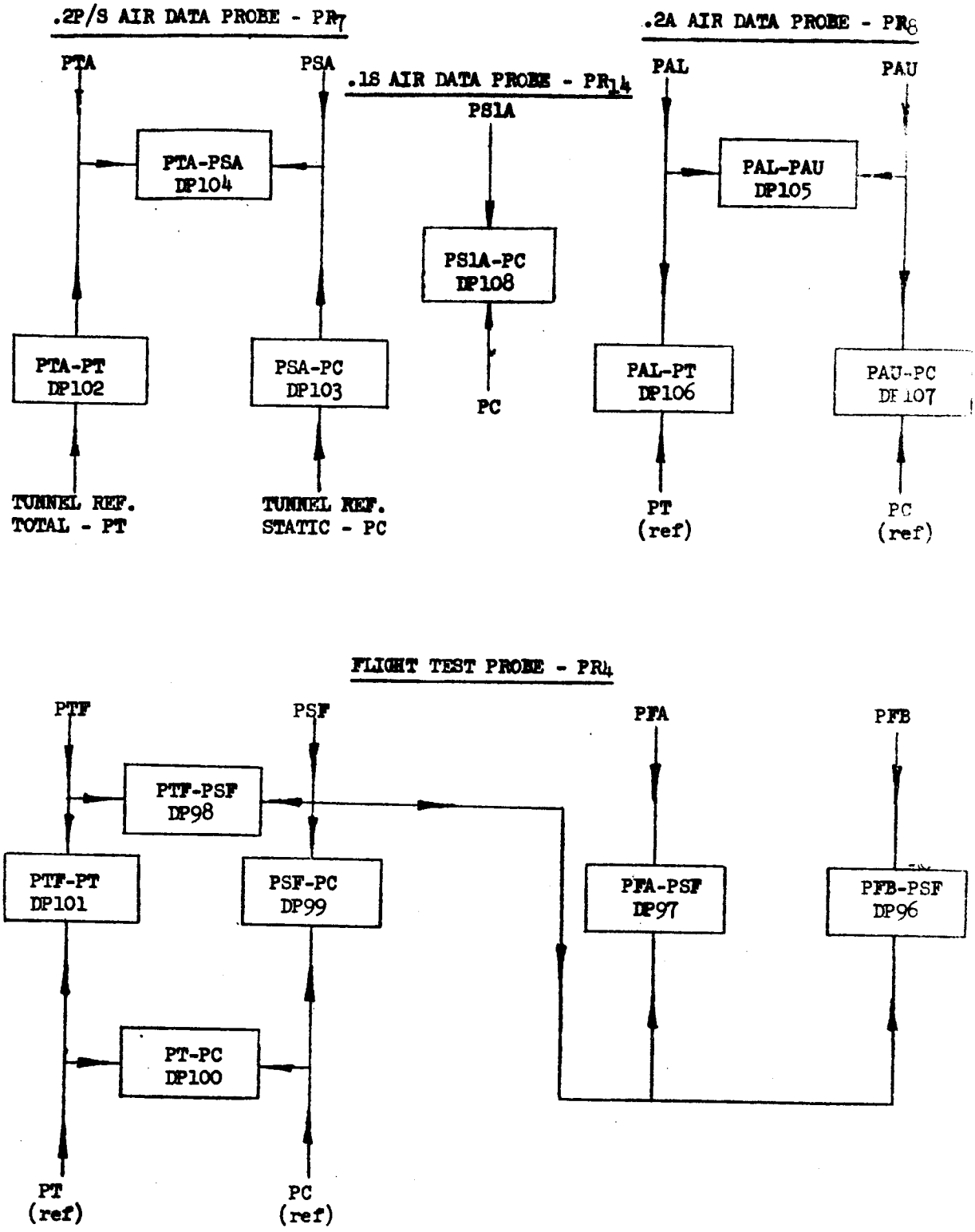
Figure 2. Scale of 859P Air Data Sensor (Angle of Attack)
Figure 2. Continued.



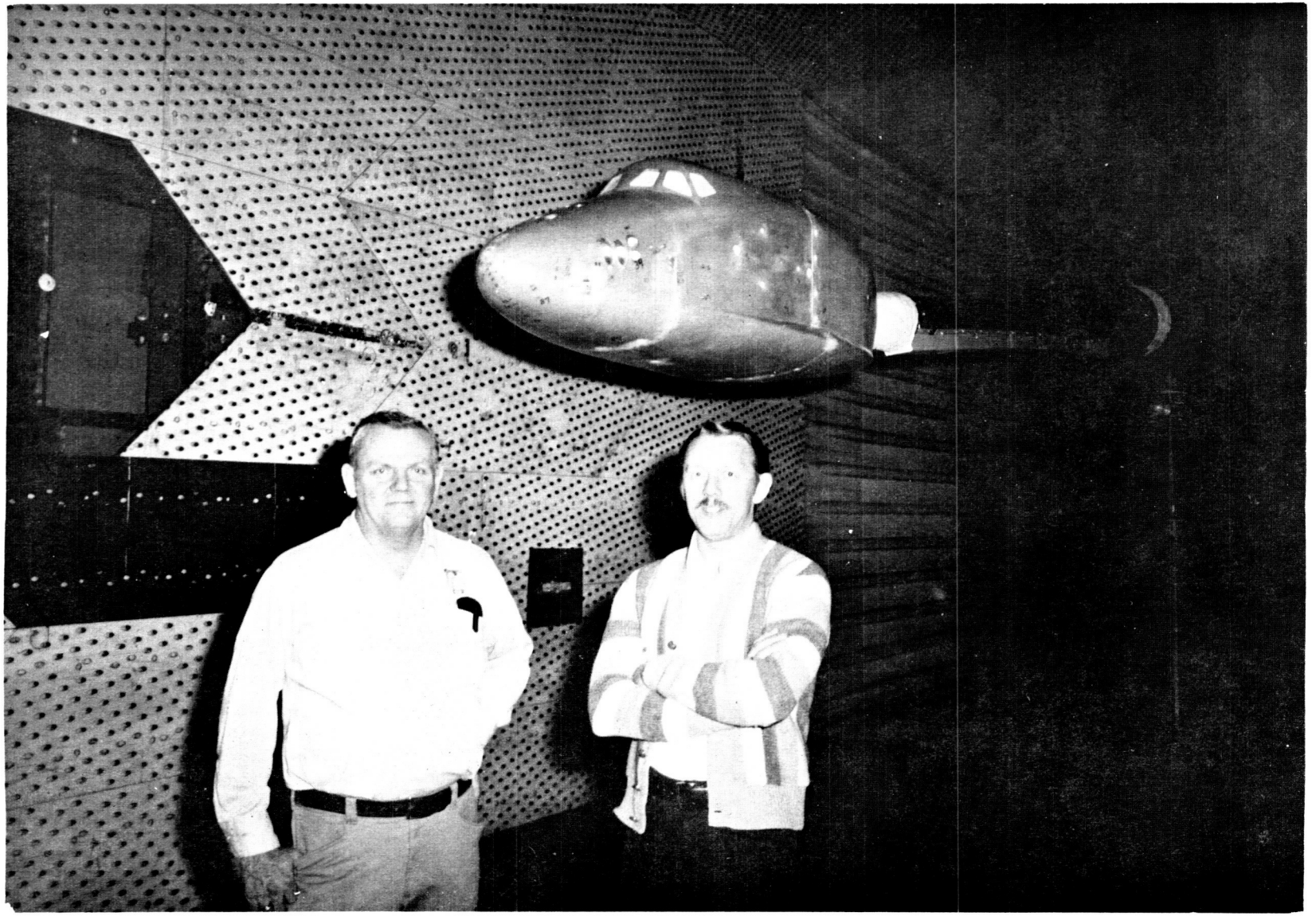
e. 0.20-scale of 859P Air Data Sensor (Pitot Static)
Figure 2. Continued.



f. Pressure Tap Number Assignments
Figure 2. Continued.

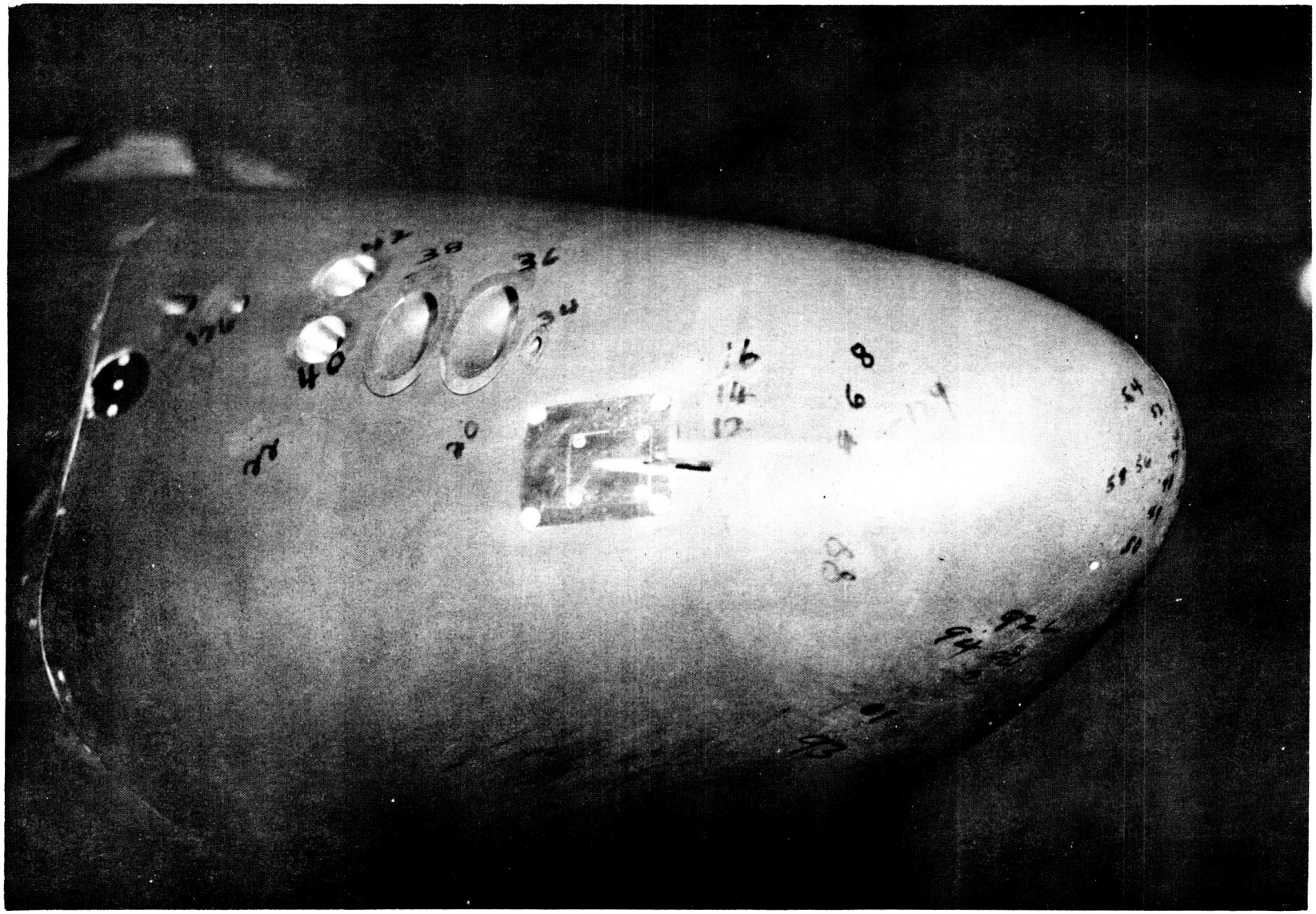


g. Air Data System Pressure Schematic
Figure 2. Concluded.

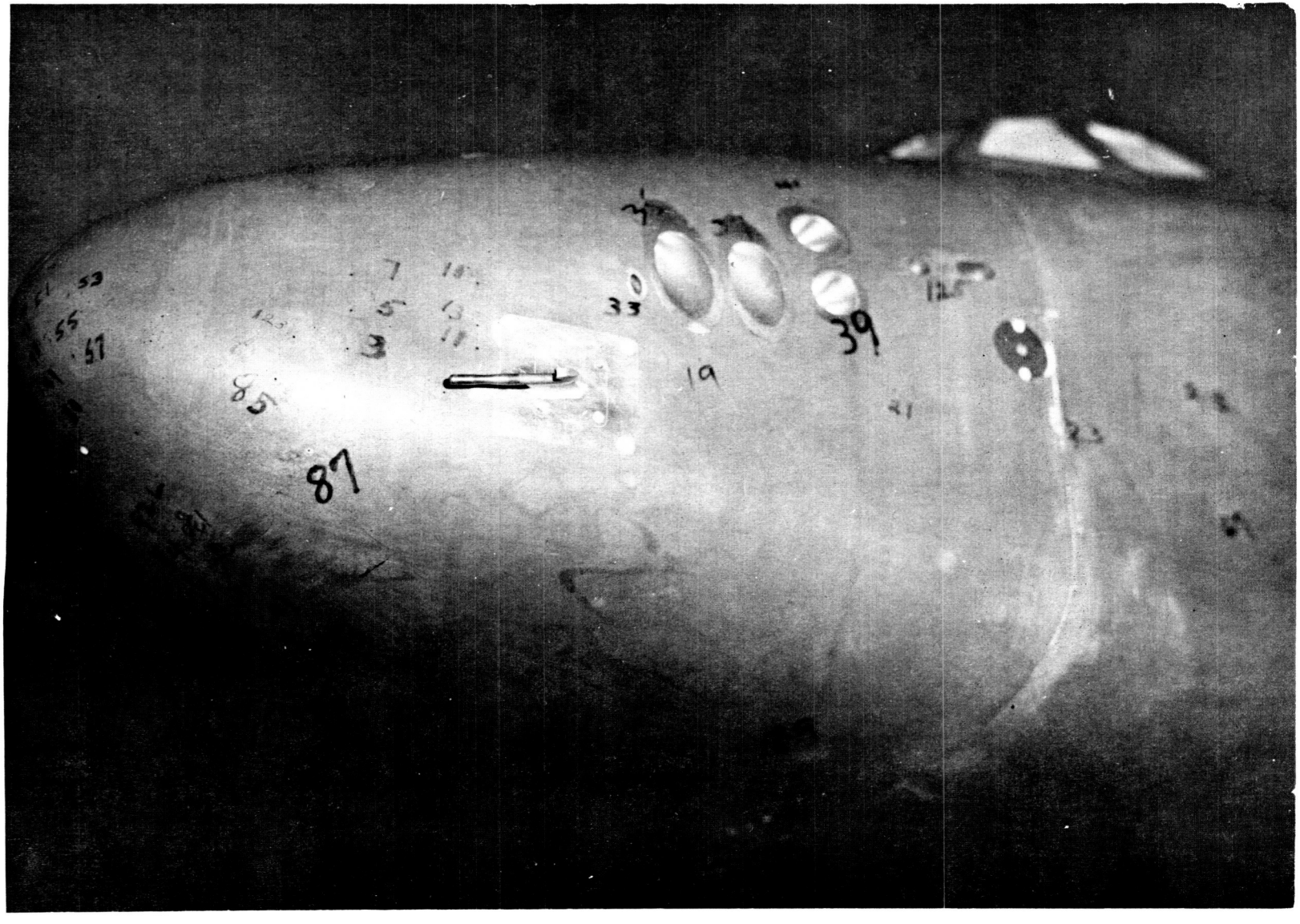


a. Model 99-0 Installation in 16-T PWT (Configuration #3)

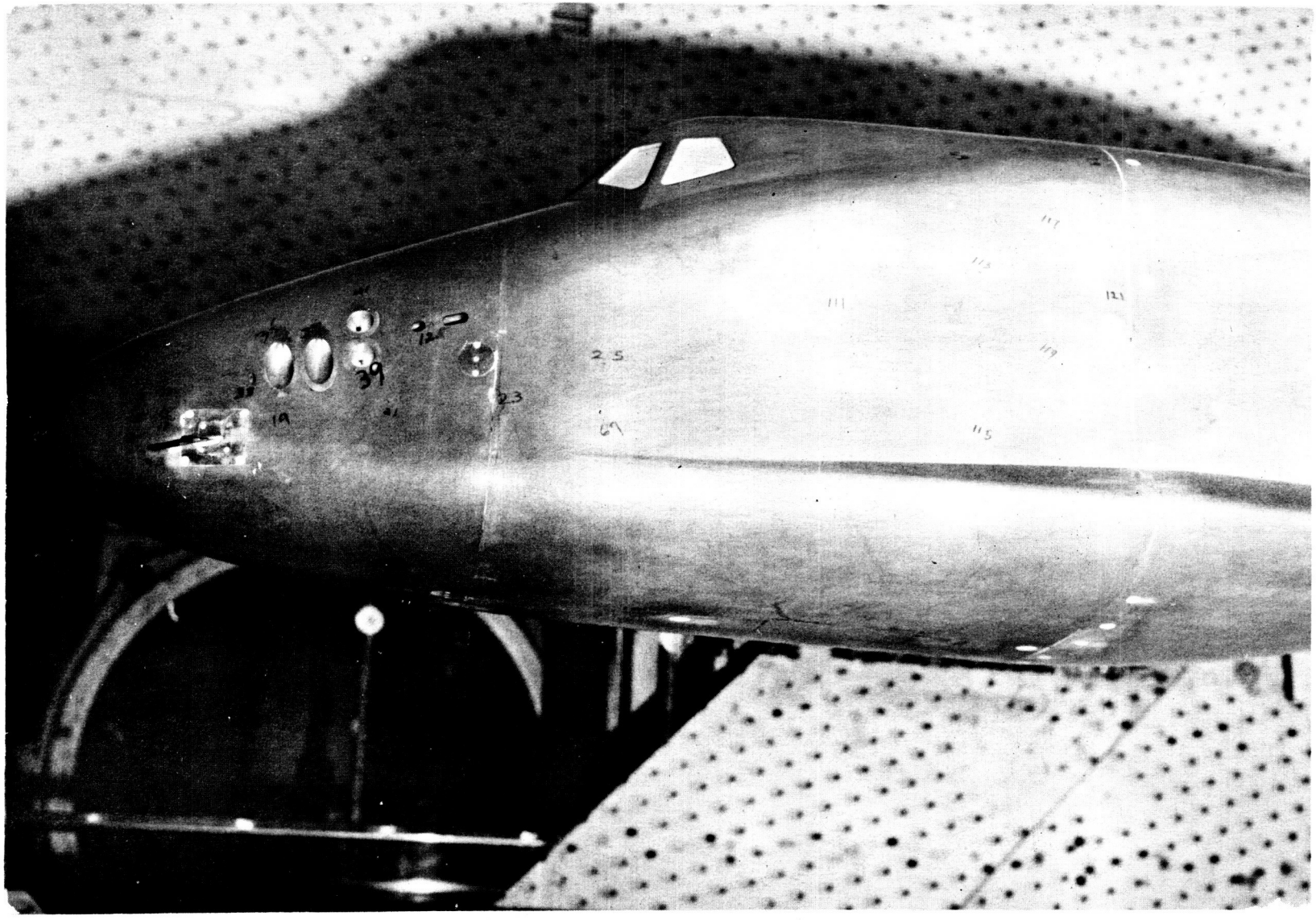
Figure 3. Model photographs.



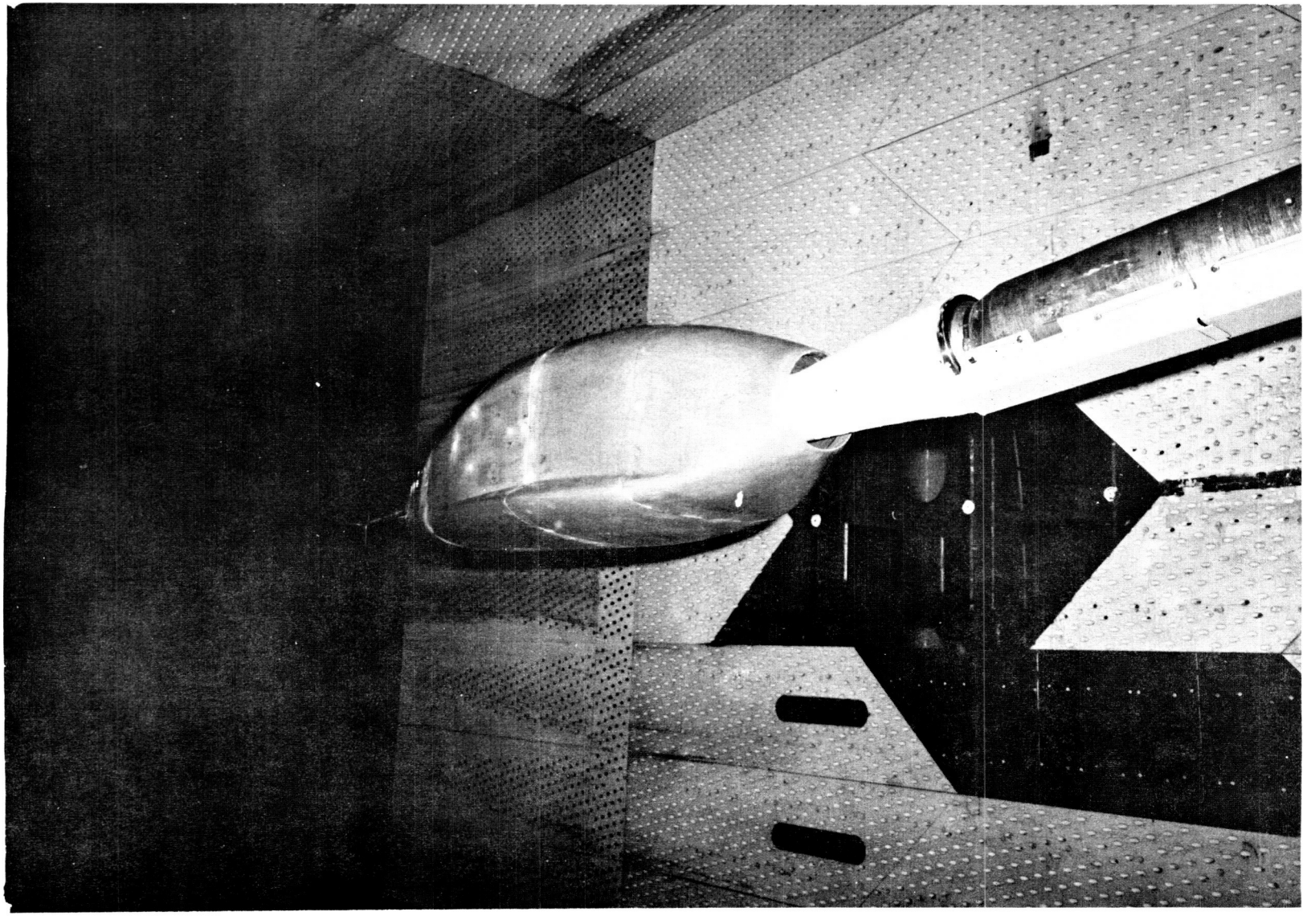
b. Right Side of Forebody with 0.1-Scale Static Probe Mounted in RFN Block
Figure 3. Continued.



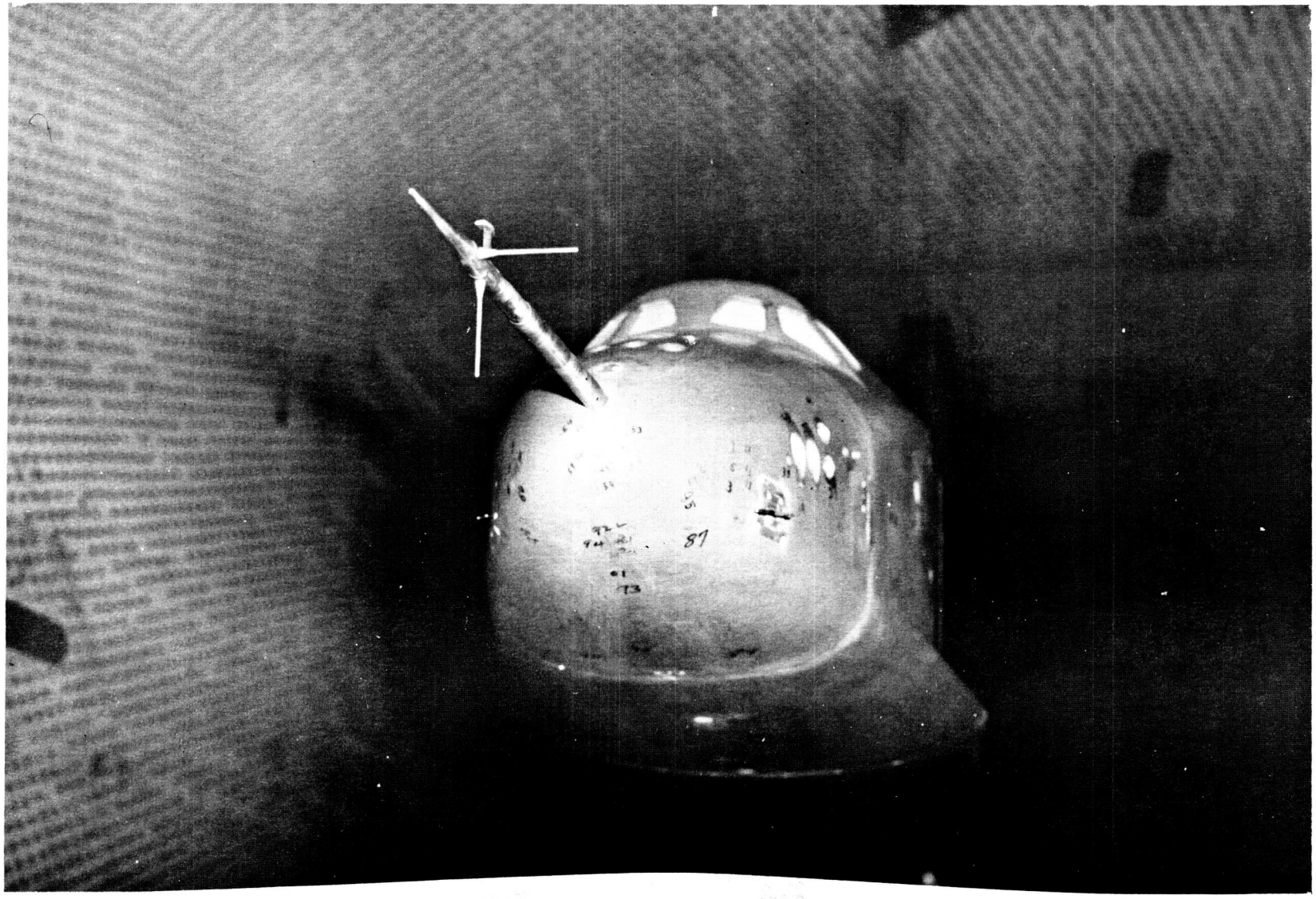
c. Left Side of Forebody with 0.2-Scale P/S Mounted in LA Block
Figure 3. Continued.



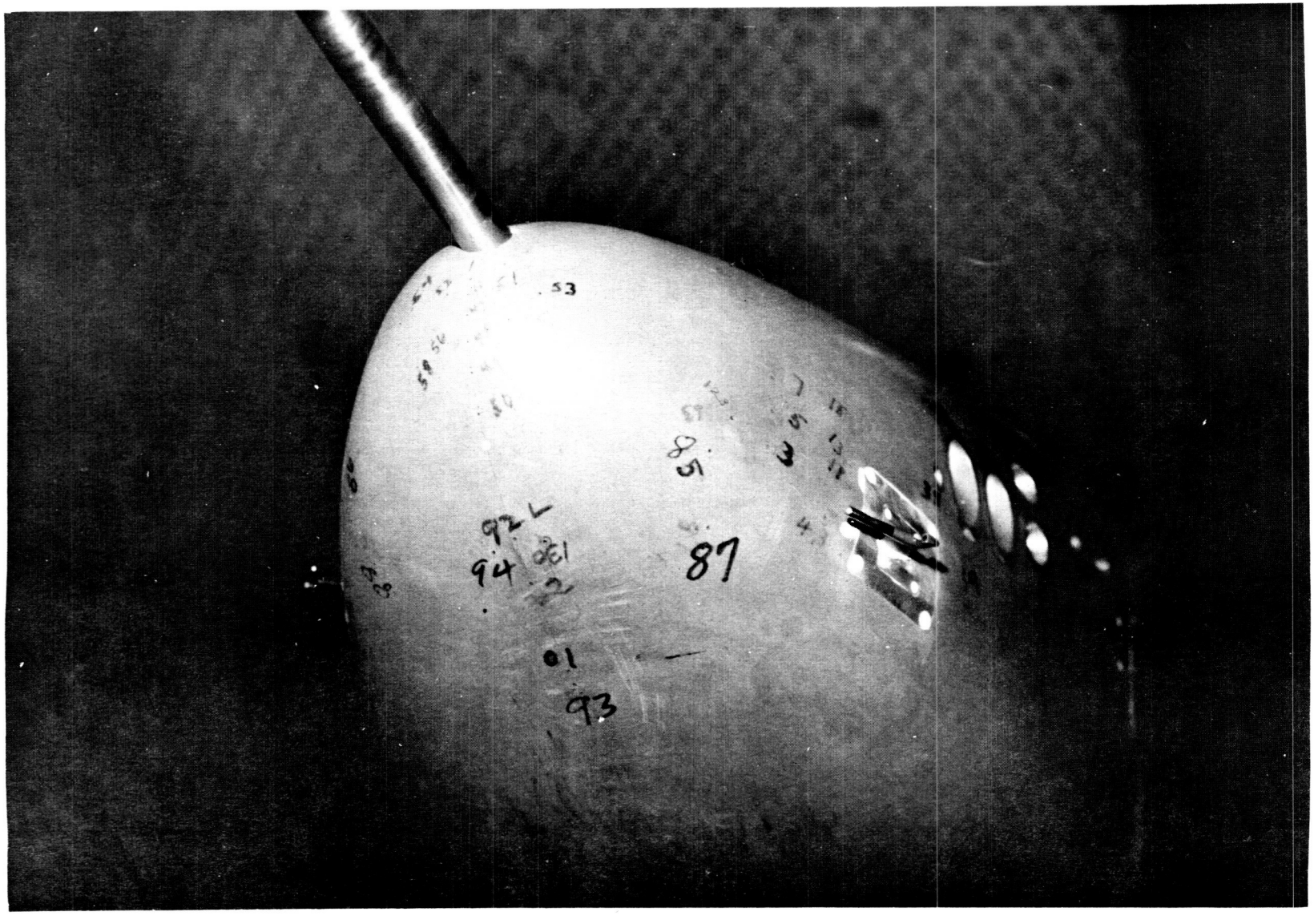
d. Left Side of Forebody Showing DFI, RCS, and Canopy Pressure Instrumentation
Figure 3. Continued.



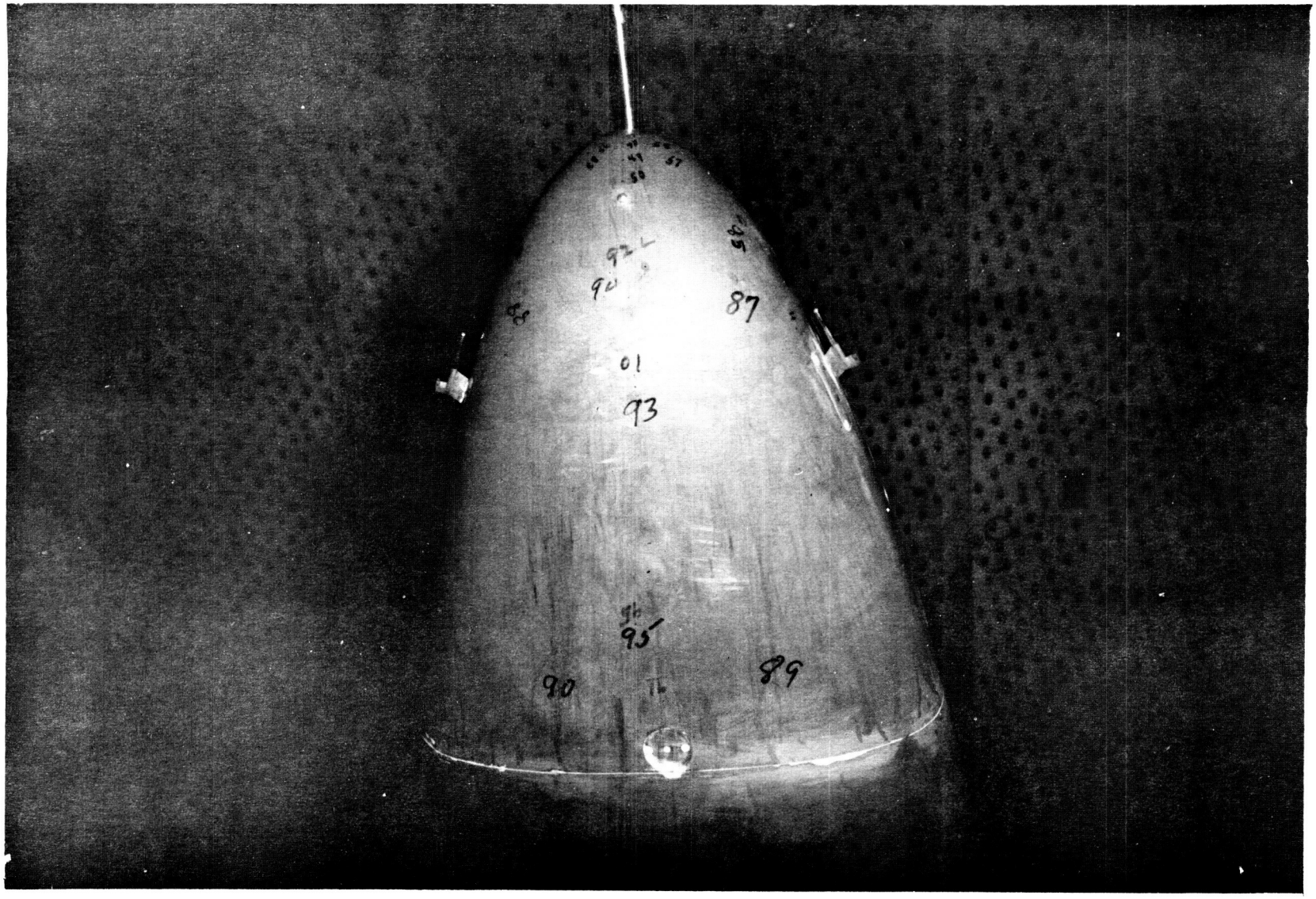
e. Aft View of 99-0 Boattail Fairing and Sting Mount
Figure 3. Continued.



f. Model 99-0 with Flight Test (FT) Probe Installed as Configuration #5
Figure 3. Continued.



g. Bottom View of Forebody Nose Showing SEADS Pressure Taps
Figure 3. Continued.



h. Bottom View of Forebody Nose Showing the S-Band FM Antenna Fairing Just Aft of the Nose on Centerline
Figure 3. Concluded.

DATA FIGURES

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVR804	○	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	.000	.000
AVR806	□	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	2.000	.000

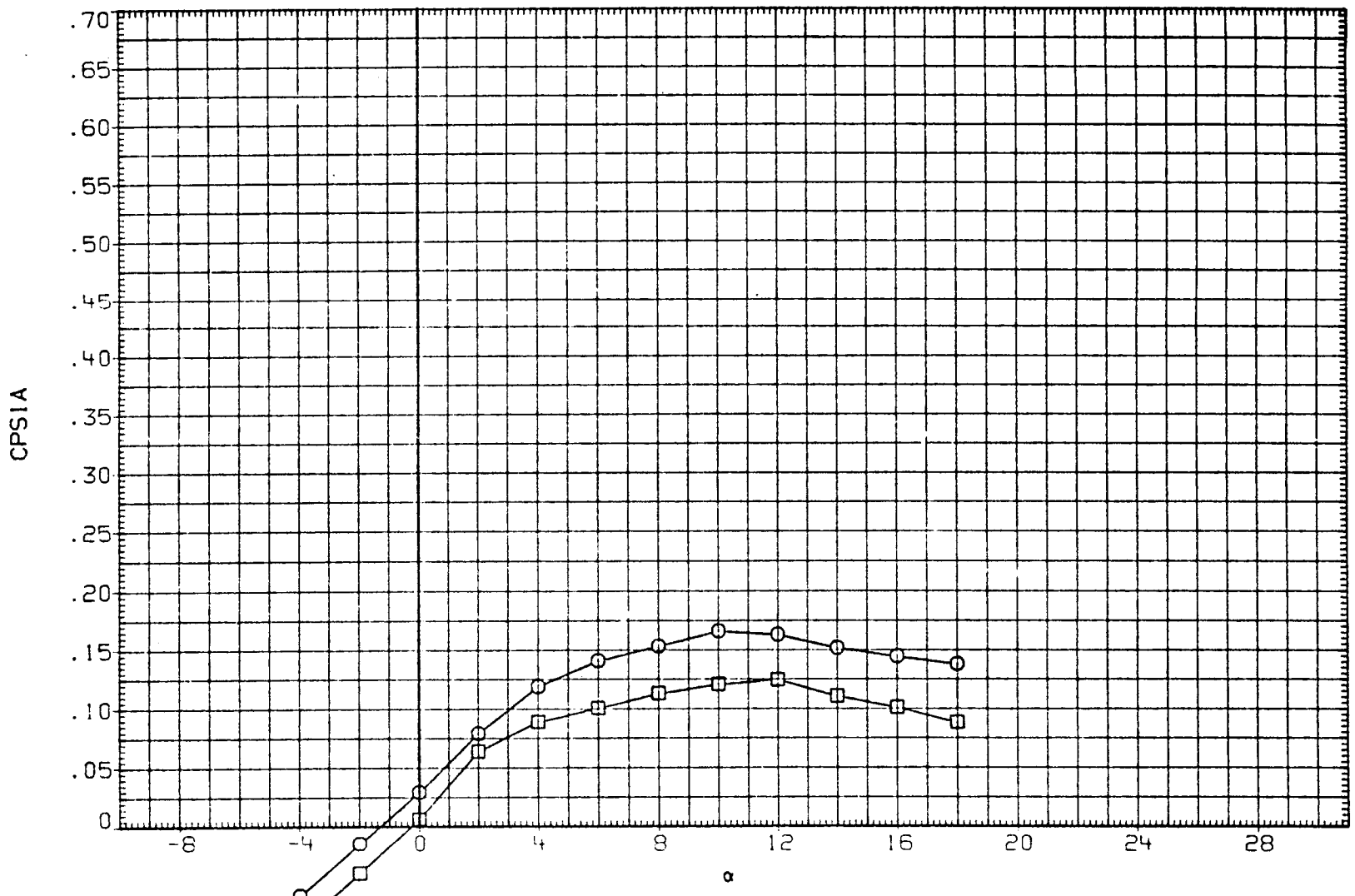


FIG. 4 0A232 SIDE PROBE CPSIA VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON LEFT SIDE

(A)MACH = .20 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVR804	○	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	.000	.000
AVR806	□	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	2.000	.000

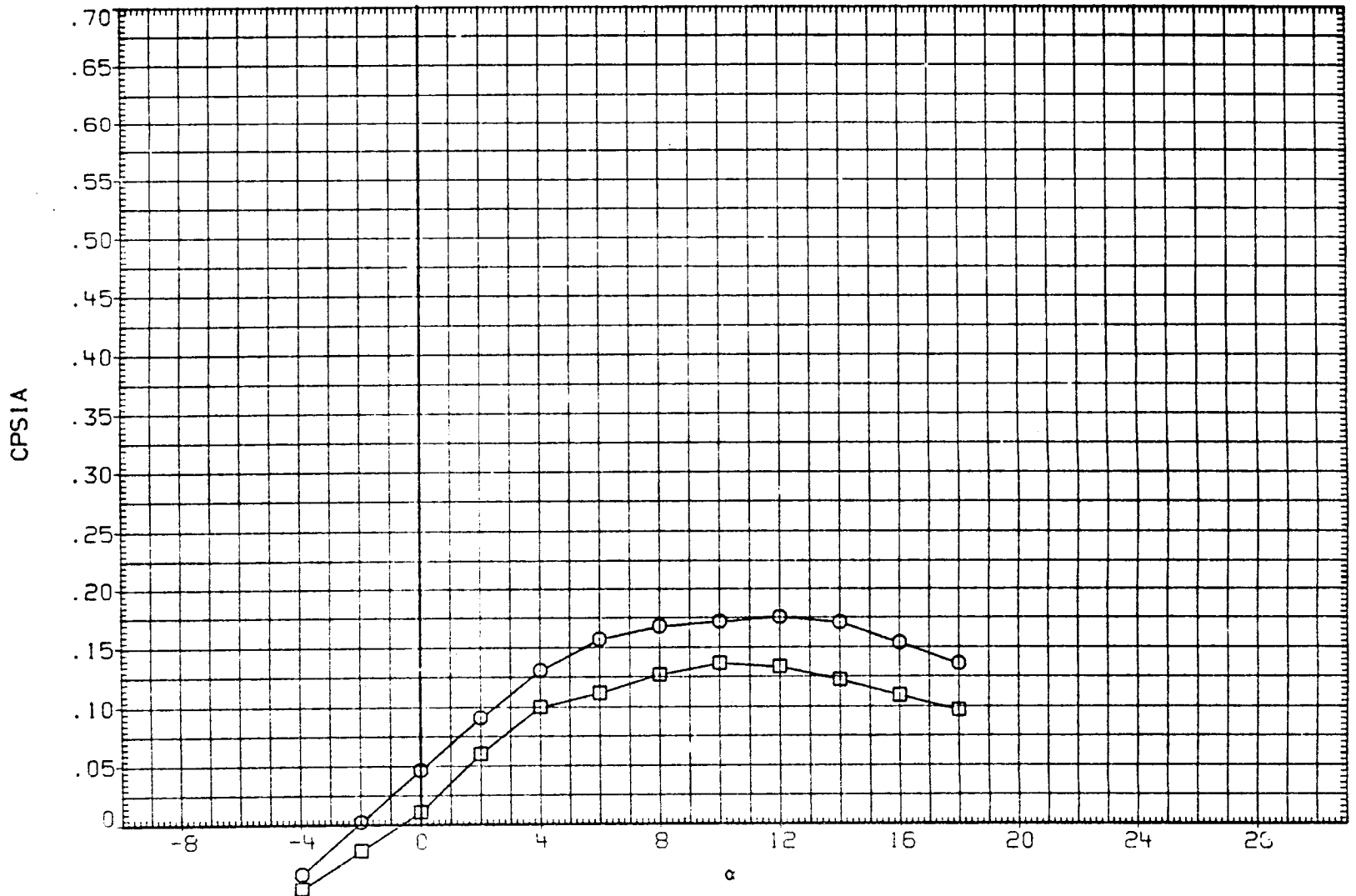


FIG. 4 0A232 SIDE PROBE CPSIA VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON LEFT SIDE

(B)MACH = .25 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVR804	○	0A232	AEDC	16T	TF431	LFN.1S RA .2P/S	.000	.000
AVR806	□	0A232	AEDC	16T	TF431	LFN.1S RA .2P/S	2.000	.000

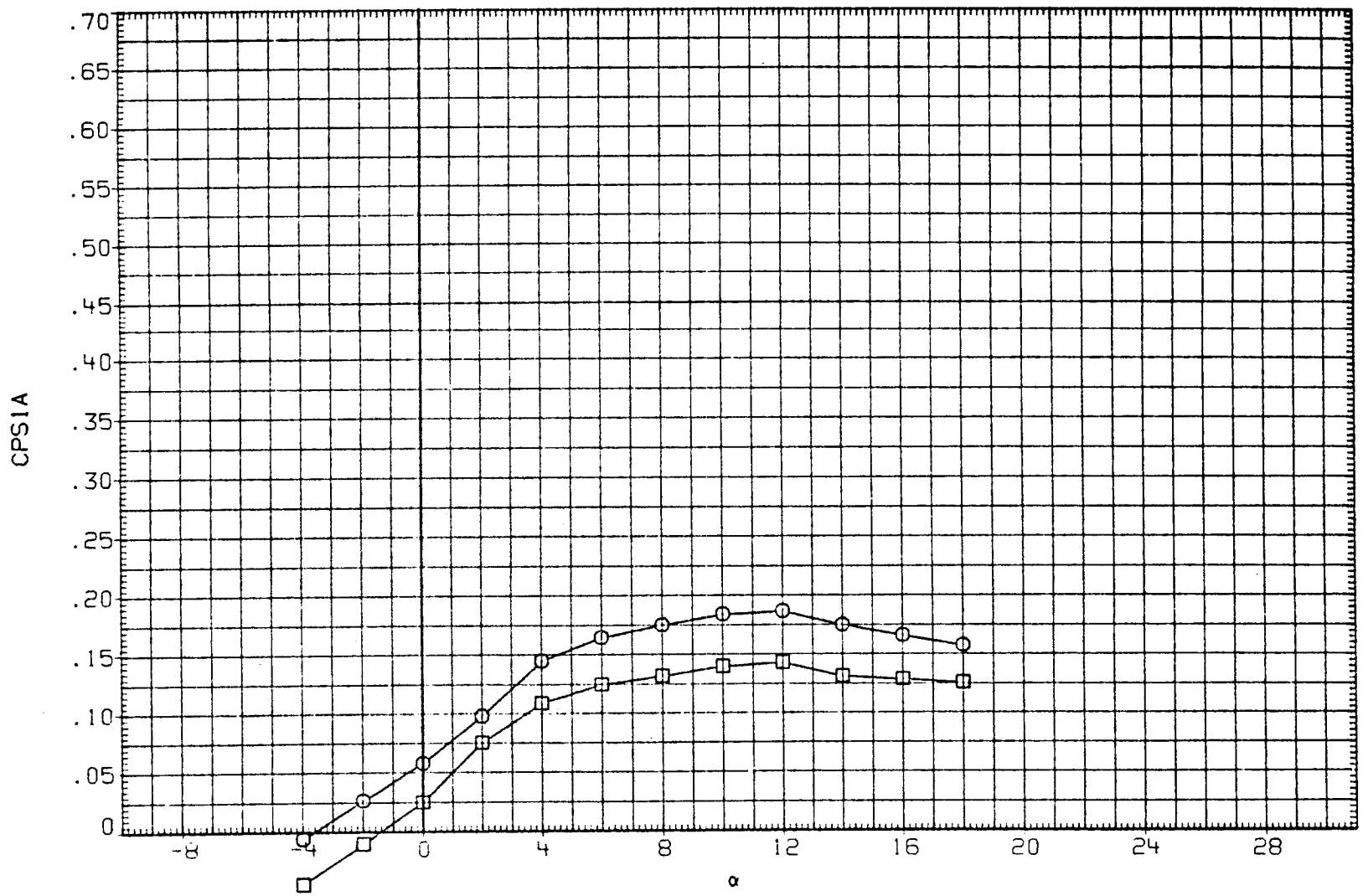


FIG. 4 0A232 SIDE PROBE CPS1A VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON LEFT SIDE

(C)MACH = .40 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRB04	○	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	.000	.000
AVRB06	□	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	2.000	.000

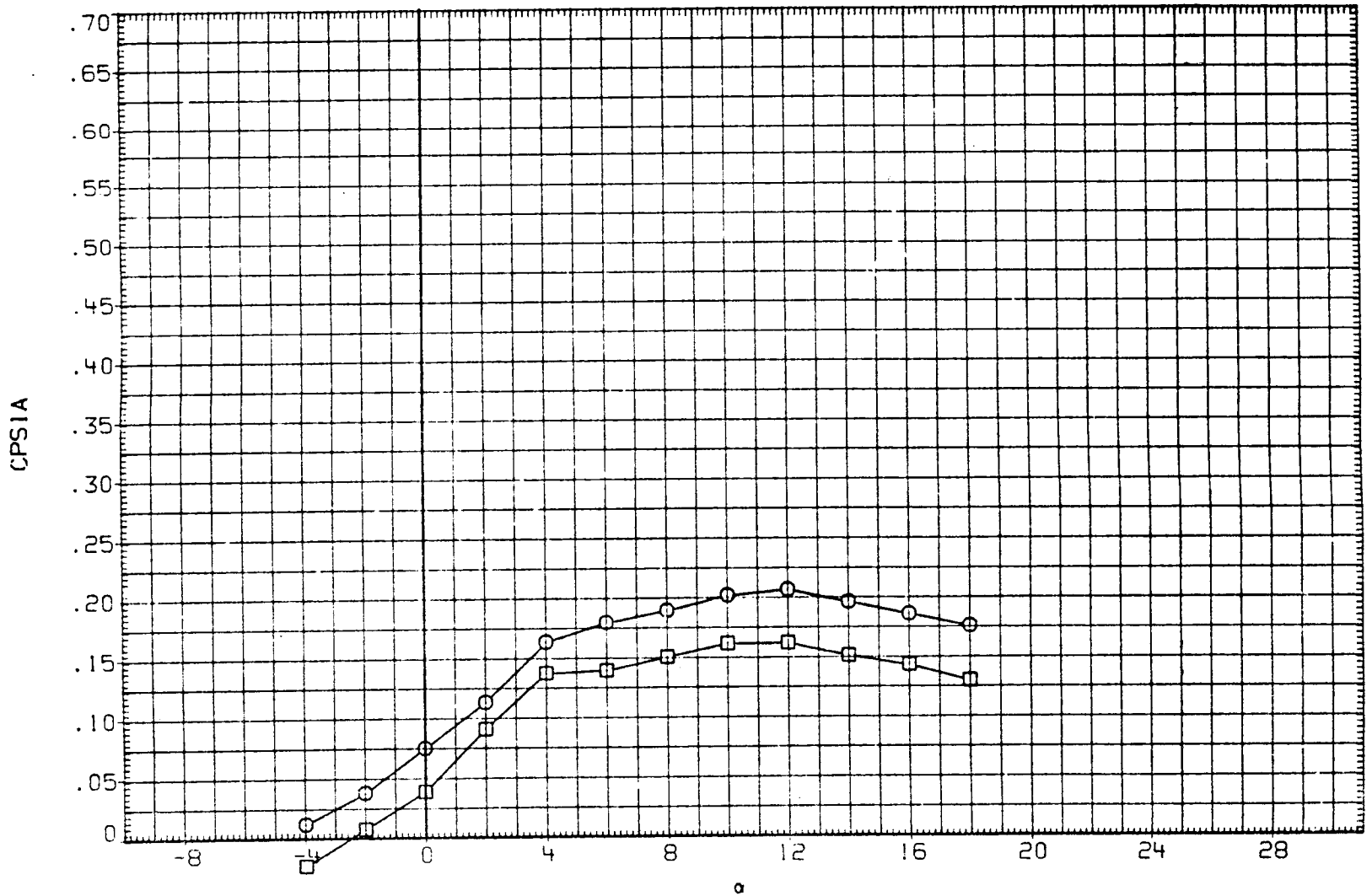


FIG. 4 0A232 SIDE PROBE CPS1A VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON LEFT SIDE

(D) MACH = .60 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVR804	○	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	.000	.000
AVR806	□	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	2.000	.000

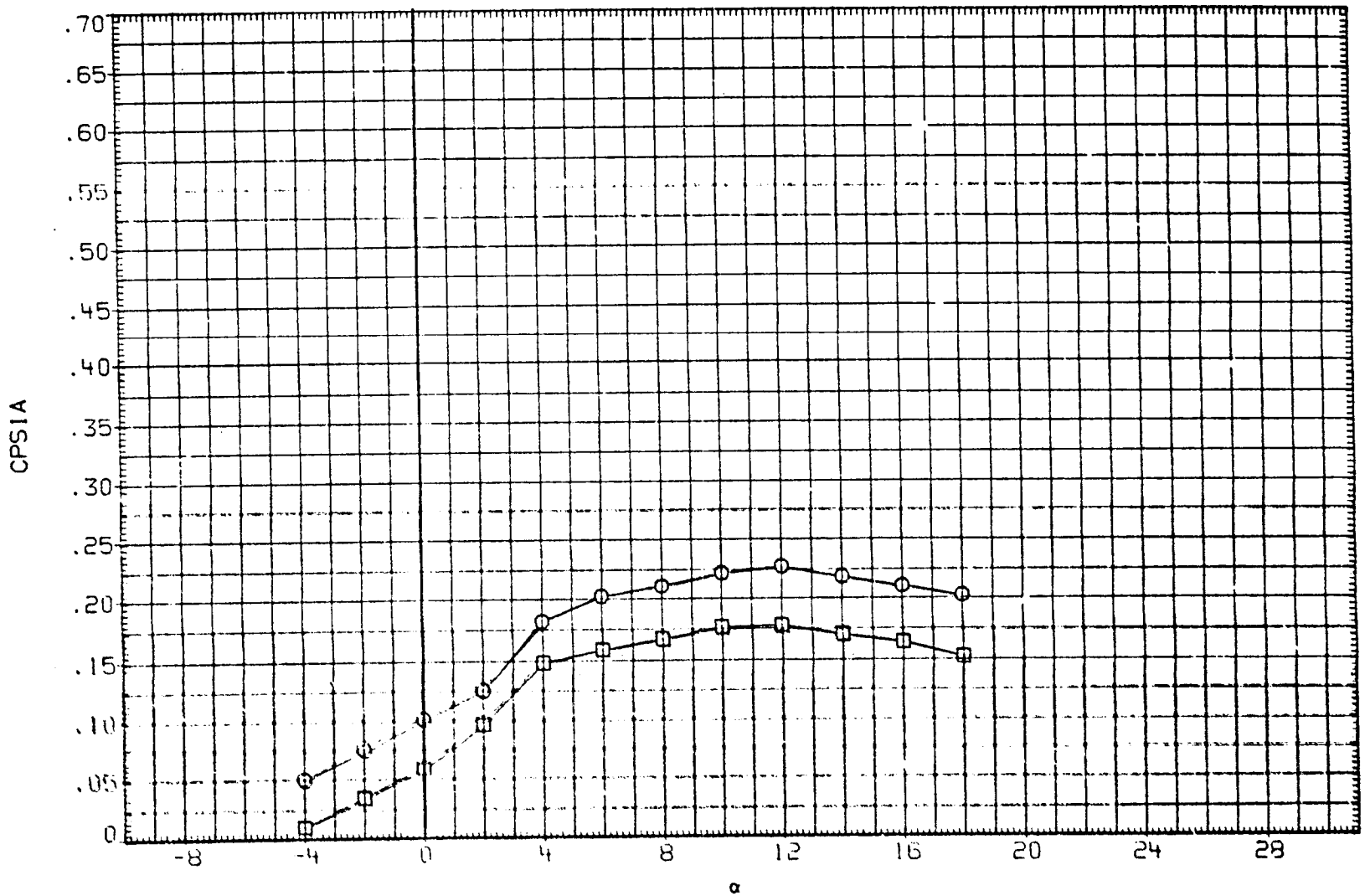


FIG. 4 0A232 SIDE PROBE CPS1A VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON LEFT SIDE

(E)MACH = .70 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRB04	○	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	.000	.000
AVRB06	□	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	2.000	.000

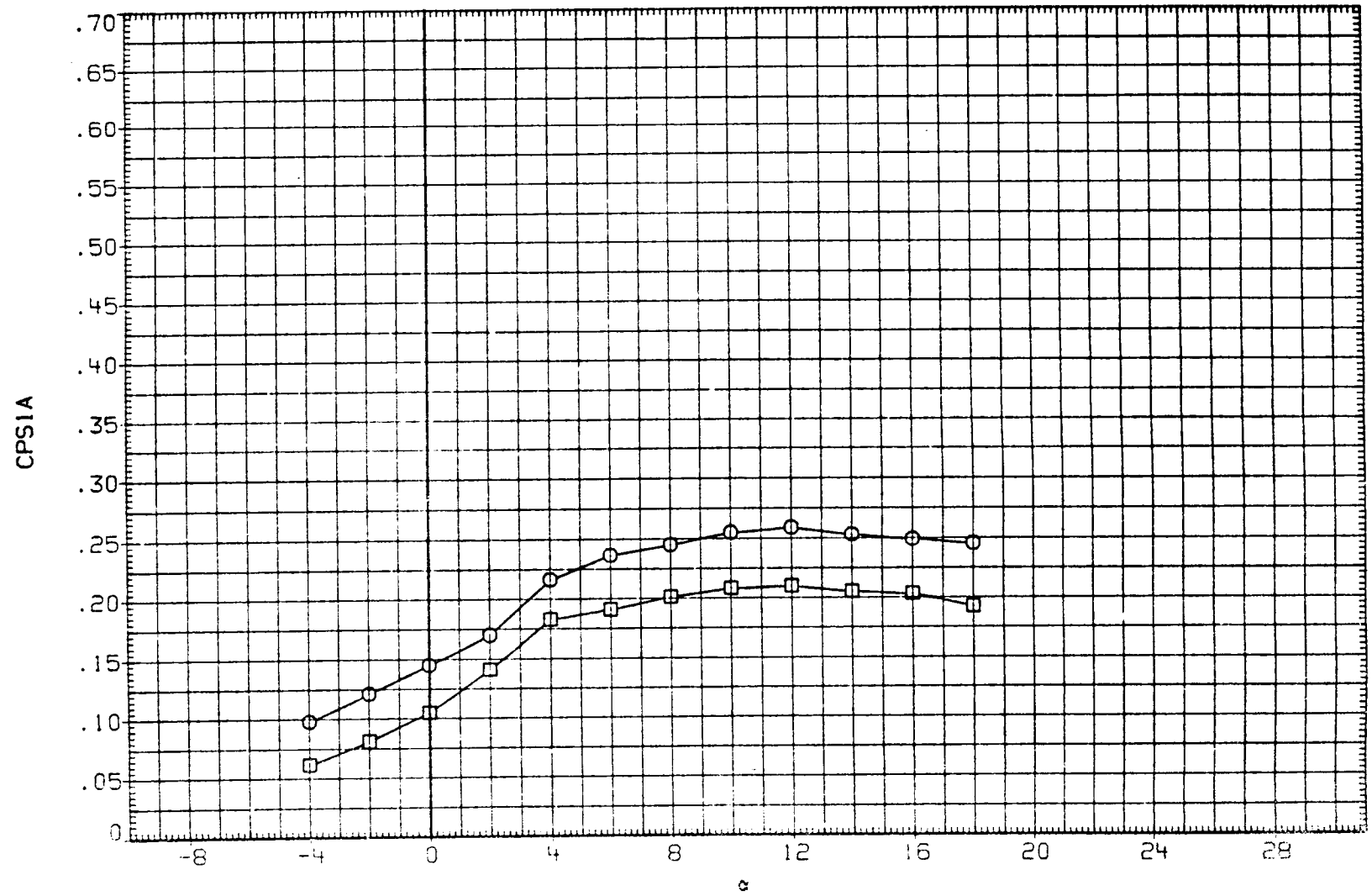


FIG. 4 0A232 SIDE PROBE CPS1A VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON LEFT SIDE

(F)MACH = .80 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRB04	○	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	.000	.000
AVRB06	□	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	2.000	.000

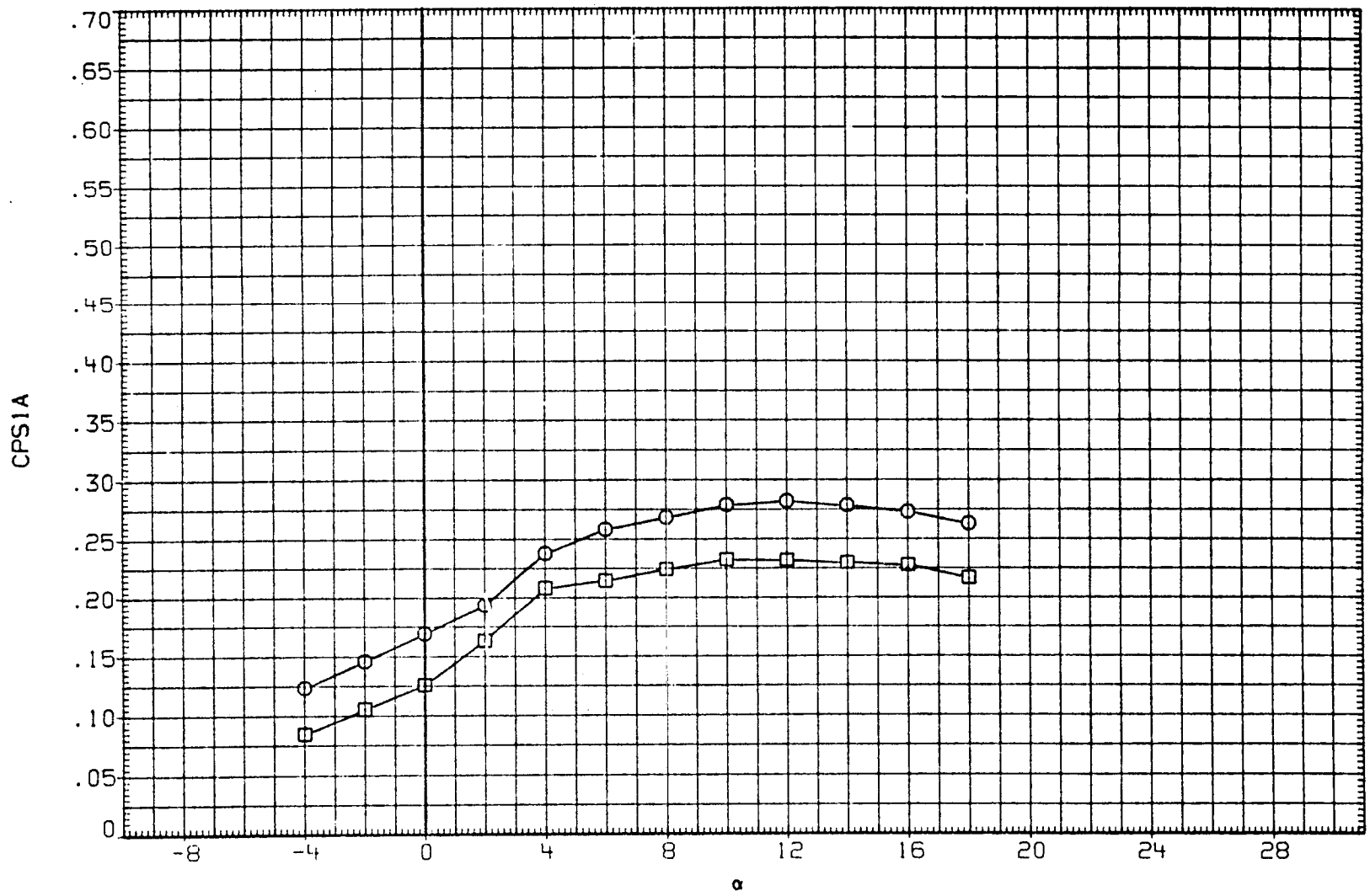


FIG. 4 0A232 SIDE PROBE CPS1A VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON LEFT SIDE

(G)MACH = .85 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVR804	○	0A232 AEDC 16T TF431 LFN.15 RA .2P/S	.000	.000
AVR806	□	0A232 AEDC 16T TF431 LFN.15 RA .2P/S	2.000	.000

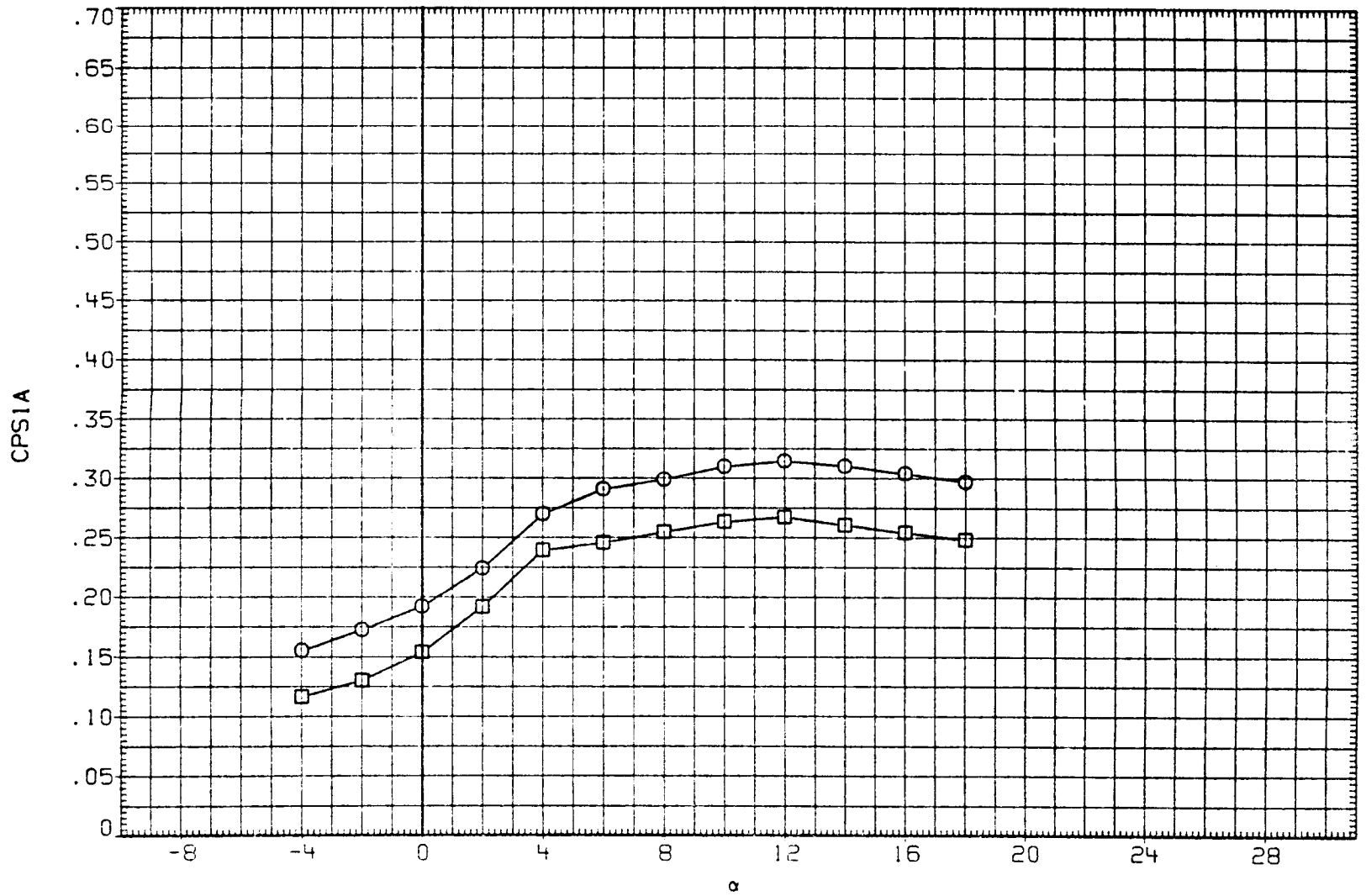


FIG. 4 0A232 SIDE PROBE CPS1A VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON LEFT SIDE

(H)MACH = .90 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRB04	○	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	.000	.000
AVRB06	□	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	2.000	.000

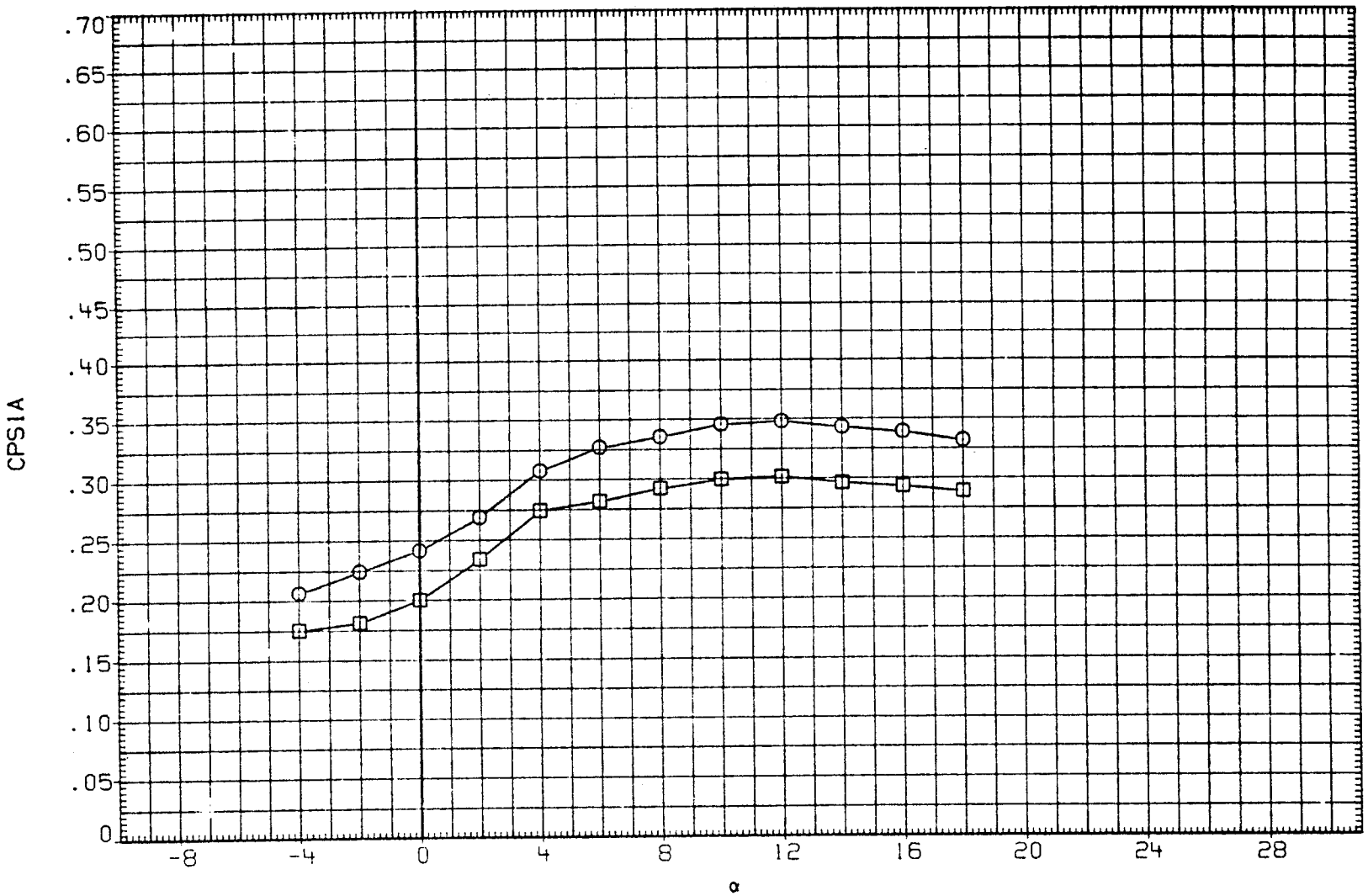


FIG. 4 0A232 SIDE PROBE CPS1A VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON LEFT SIDE

(I)MACH = .95 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVR804	○	OA232	AEDC 16T TF431	LFN.1S	RA .2P/S	.000	.000
AVR806	□	OA232	AEDC 16T TF431	LFN.1S	RA .2P/S	2.000	.000

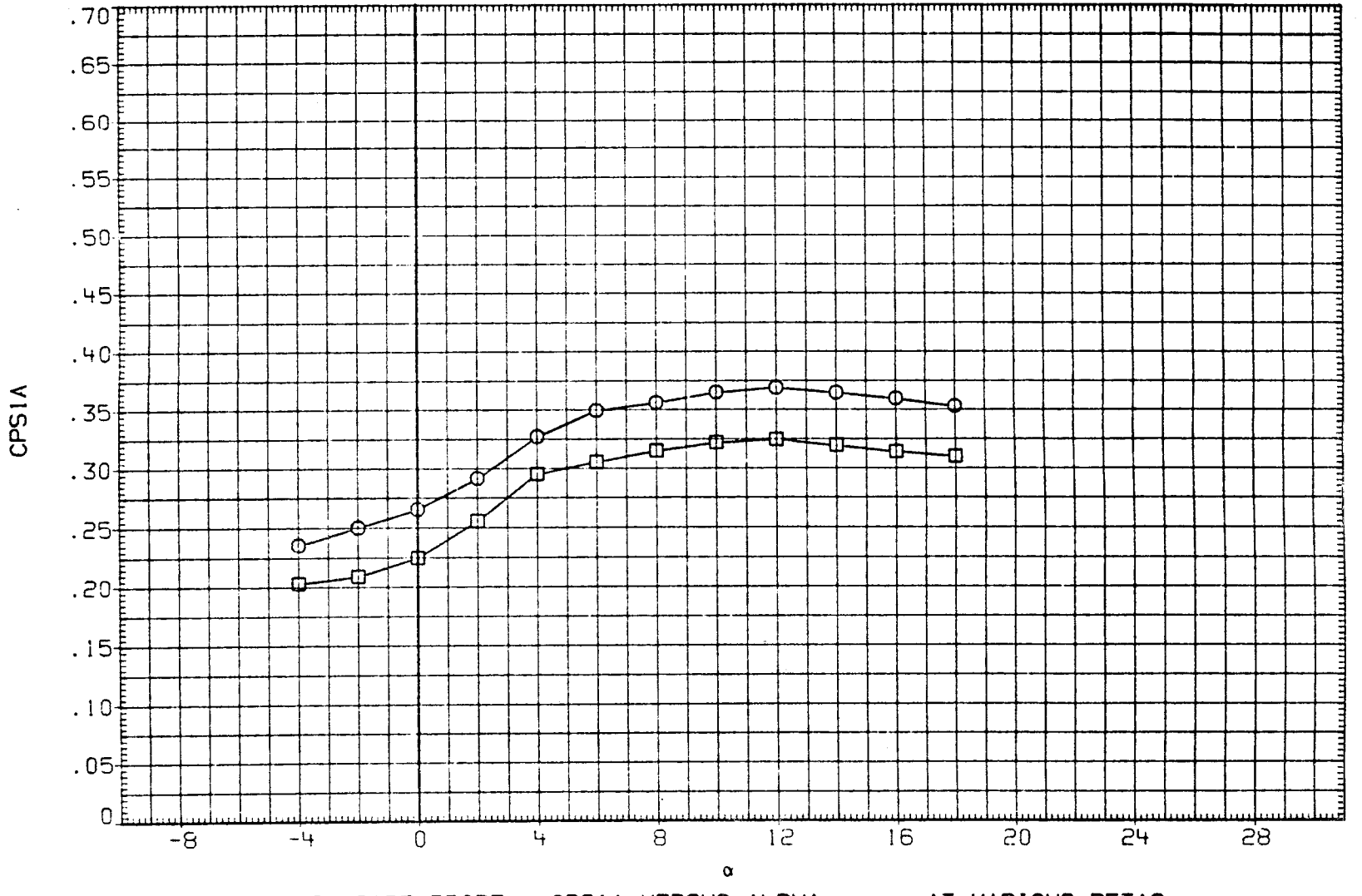


FIG. 4 OA232 SIDE PROBE CPS1A VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON LEFT SIDE

(J)MACH = .98 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRB04	○	0A232	AEDC 16T TF43I	LFN.IS	RA .2P/S	.000	.000
AVRB06	□	0A232	AEDC 16T TF43I	LFN.IS	RA .2P/S	2.000	.000

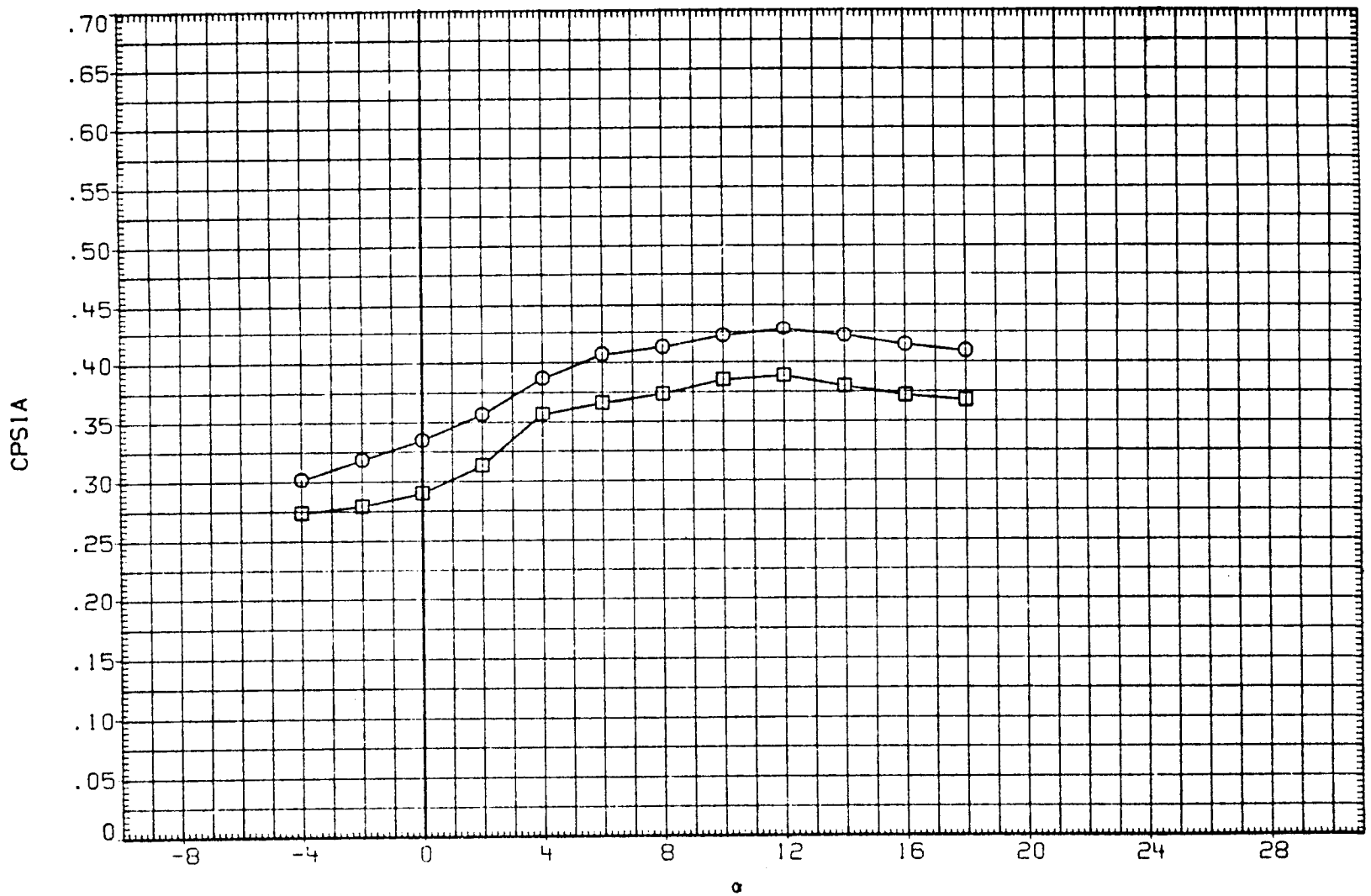


FIG. 4 0A232 SIDE PROBE CPS1A VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON LEFT SIDE

(K)MACH = 1.05 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVR804	○	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	.000	.000
AVR806	□	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	2.000	.000

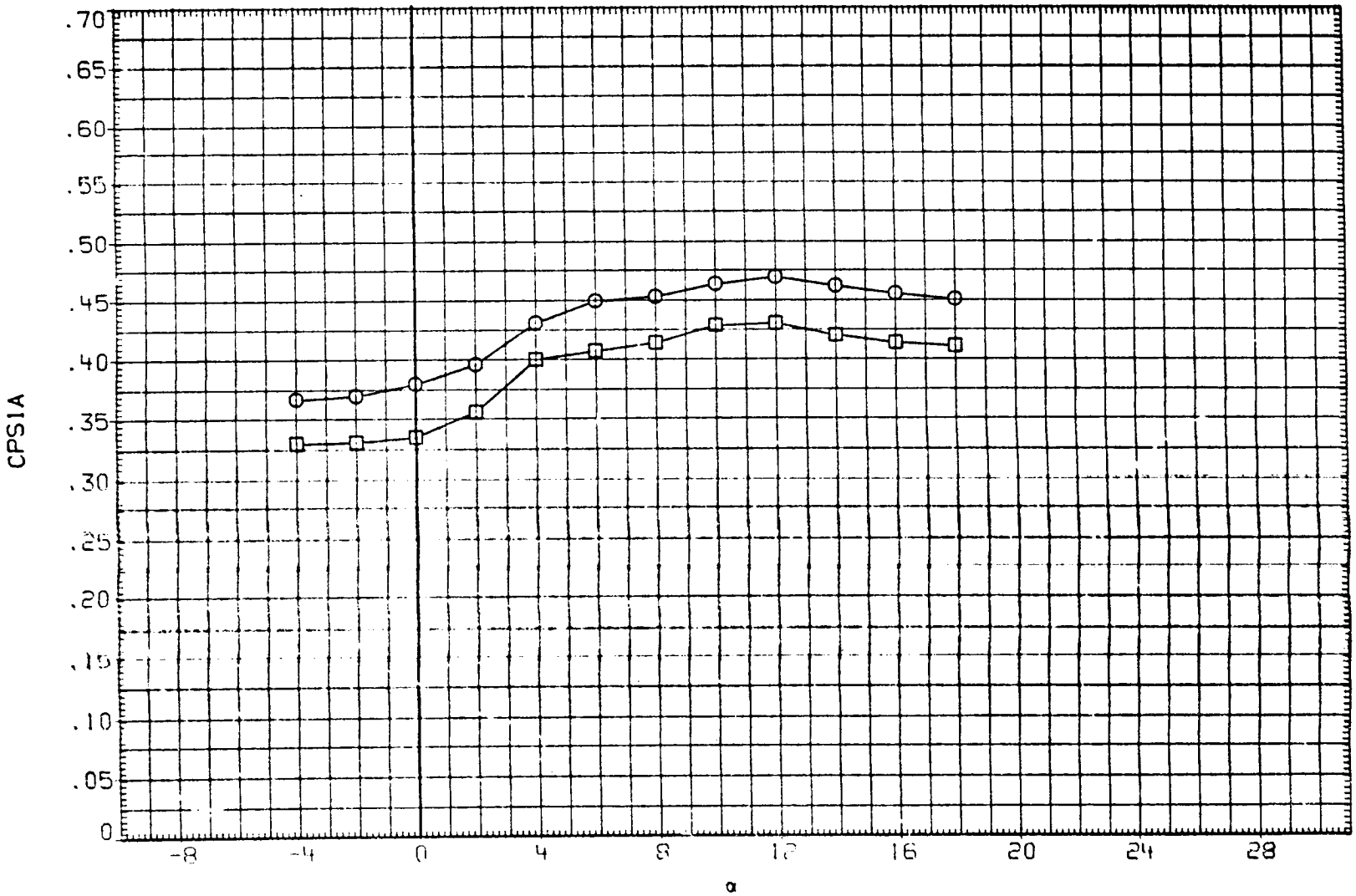


FIG. 4 0A232 SIDE PROBE CPS1A VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON LEFT SIDE

(L)MACH = 1.10 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB04	○	0A232 AEDC 16T TF431 LFN.1S RA .2P/S	.000	.000
AVRB06	□	0A232 AEDC 16T TF431 LFN.1S RA .2P/S	2.000	.000

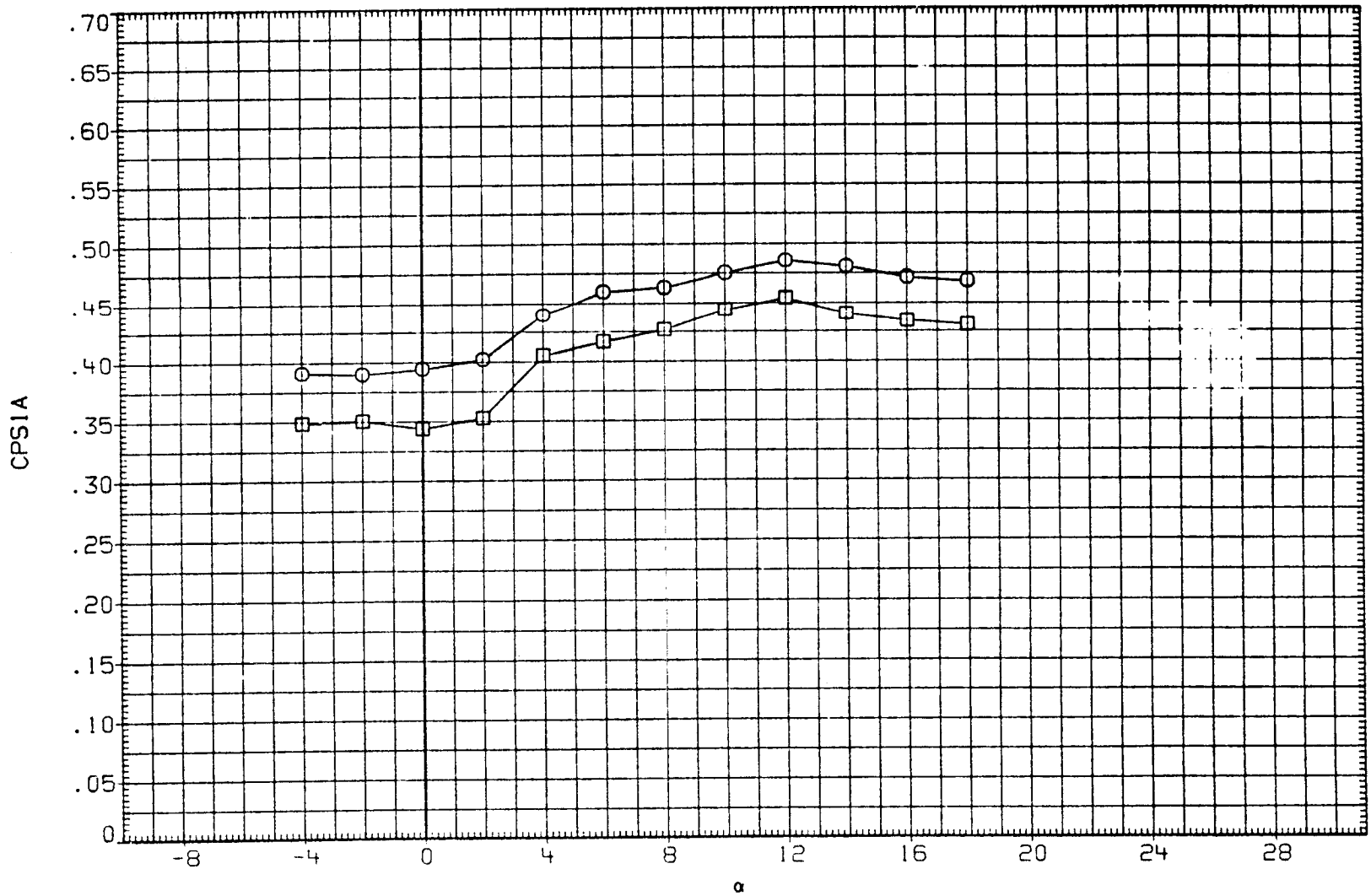


FIG. 4 0A232 SIDE PROBE CPS1A VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON LEFT SIDE

(M)MACH = 1.15 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRB04	○	0A232	AEDC 16T TF431	LFN.15	RA .2P/S	.000	.000
AVRB06	□	0A232	AEDC 16T TF431	LFN.13	RA .2P/S	2.000	.000

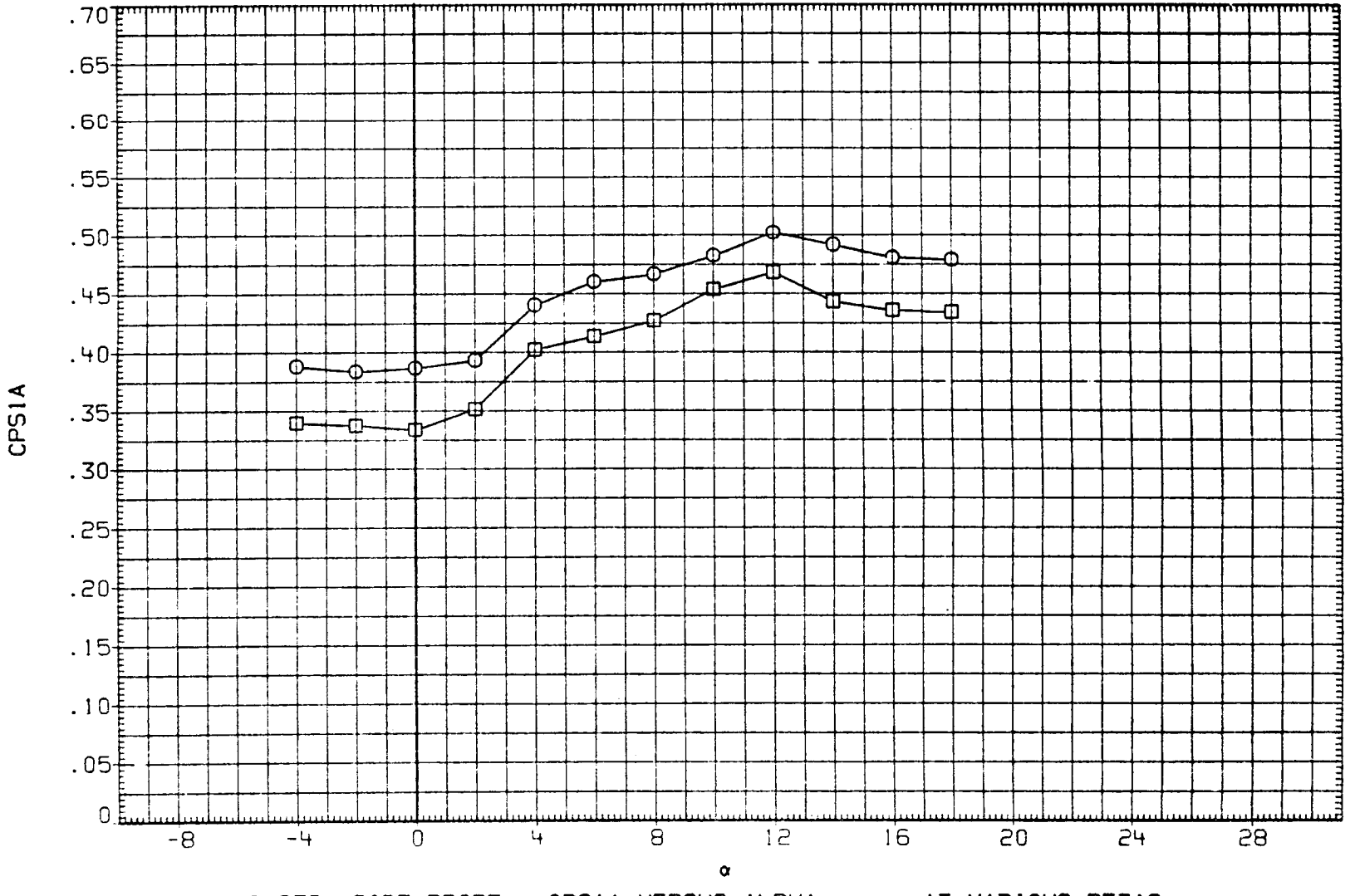


FIG. 4 0A232 SIDE PROBE CPS1A VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON LEFT SIDE

(N)MACH = 1.20 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRB04	○	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	.000	.000
AVRB06	□	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	2.000	.000

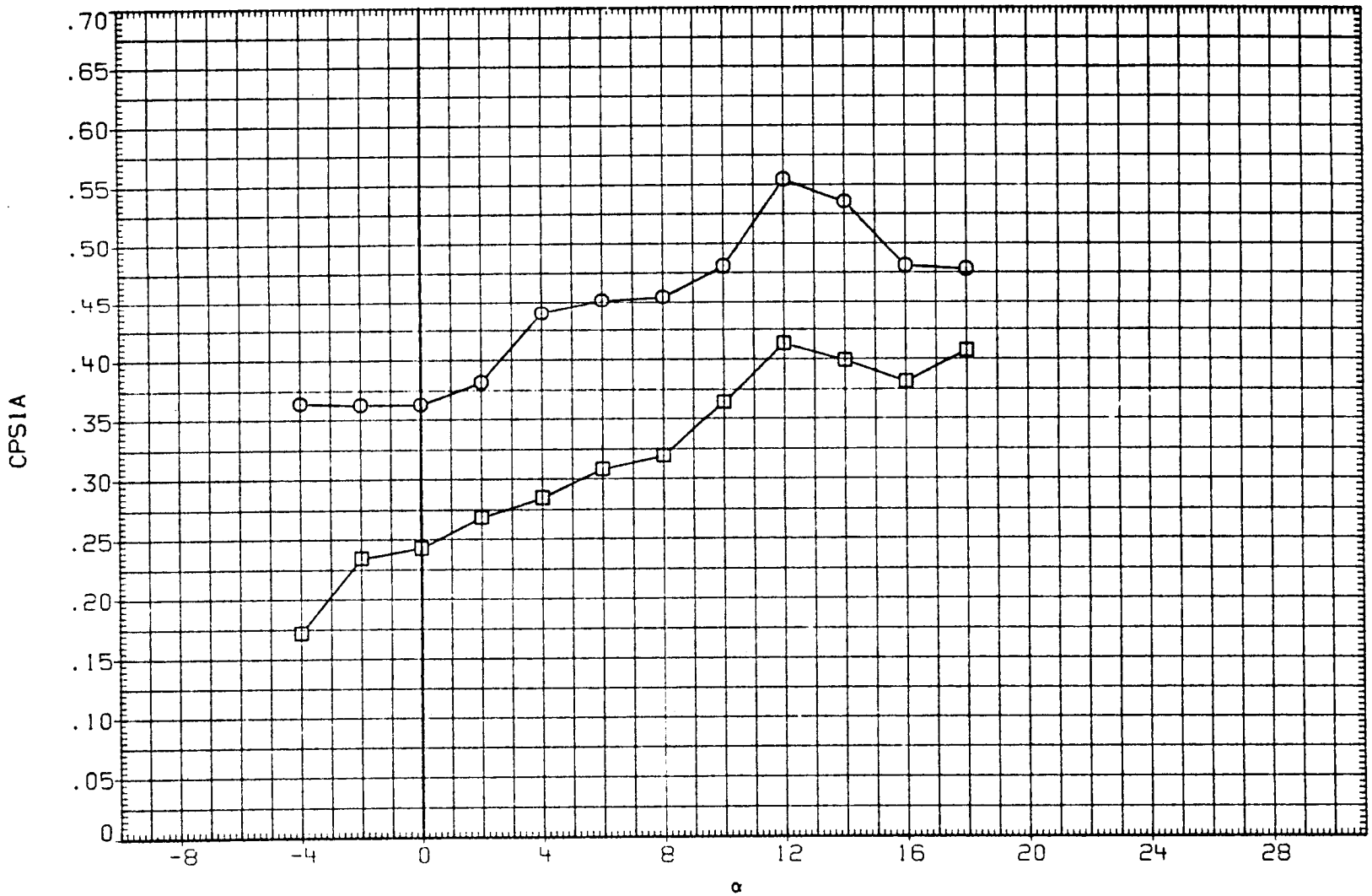


FIG. 4 0A232 SIDE PROBE CPS1A VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON LEFT SIDE

(O)MACH = 1.30 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVR804	○	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	.000	.000
AVR806	□	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	2.000	.000

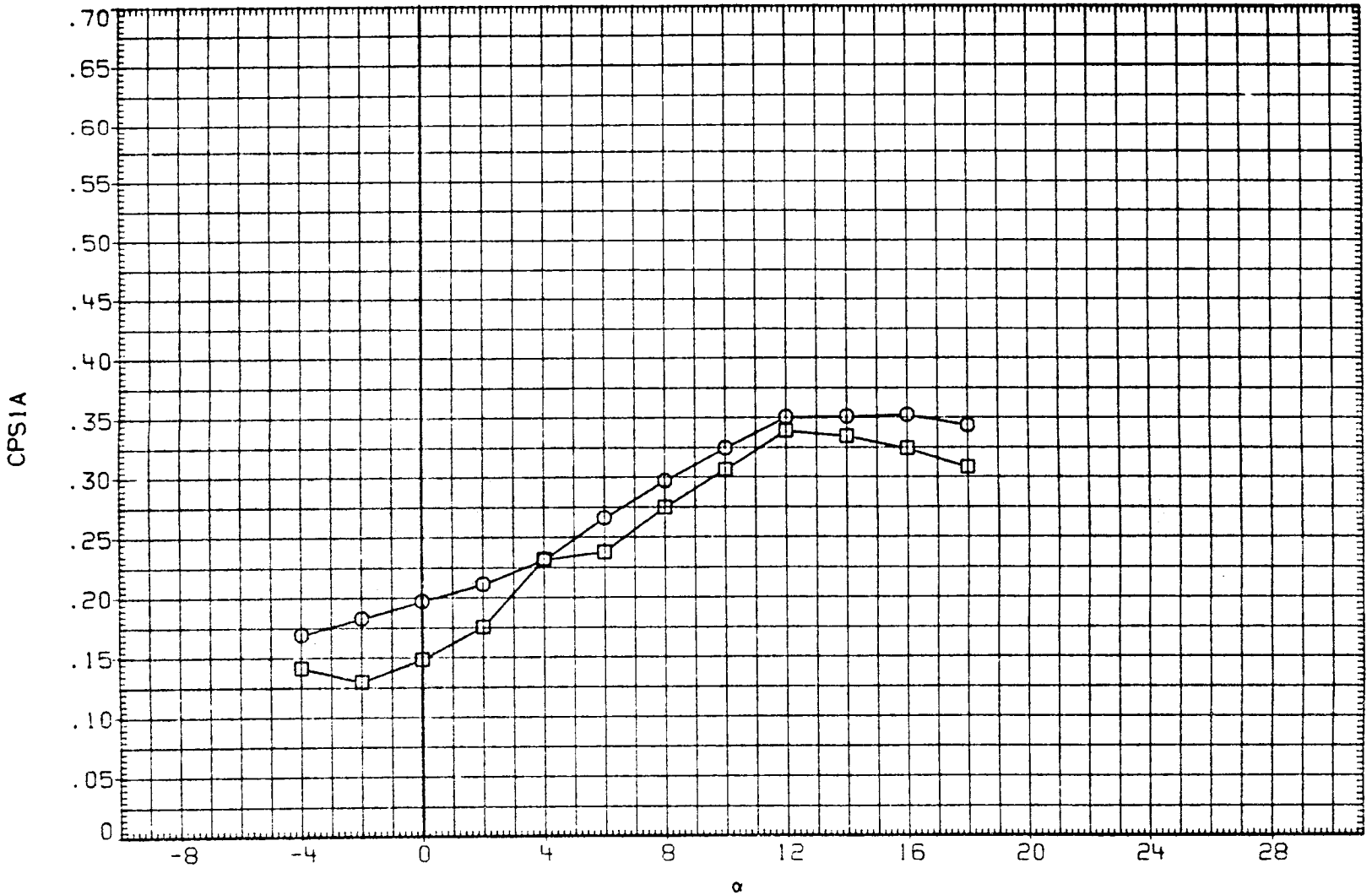


FIG. 4 0A232 SIDE PROBE CPS1A VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON LEFT SIDE

(P)MACH = 1.40 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION			BETA	PHI
AVRB04	○	0A232	AEDC 16T TF431 LFN.1S	RA .2P/S	.000	.000
AVRB06	□	0A232	AEDC 16T TF431 LFN.1S	RA .2P/S	2.000	.000

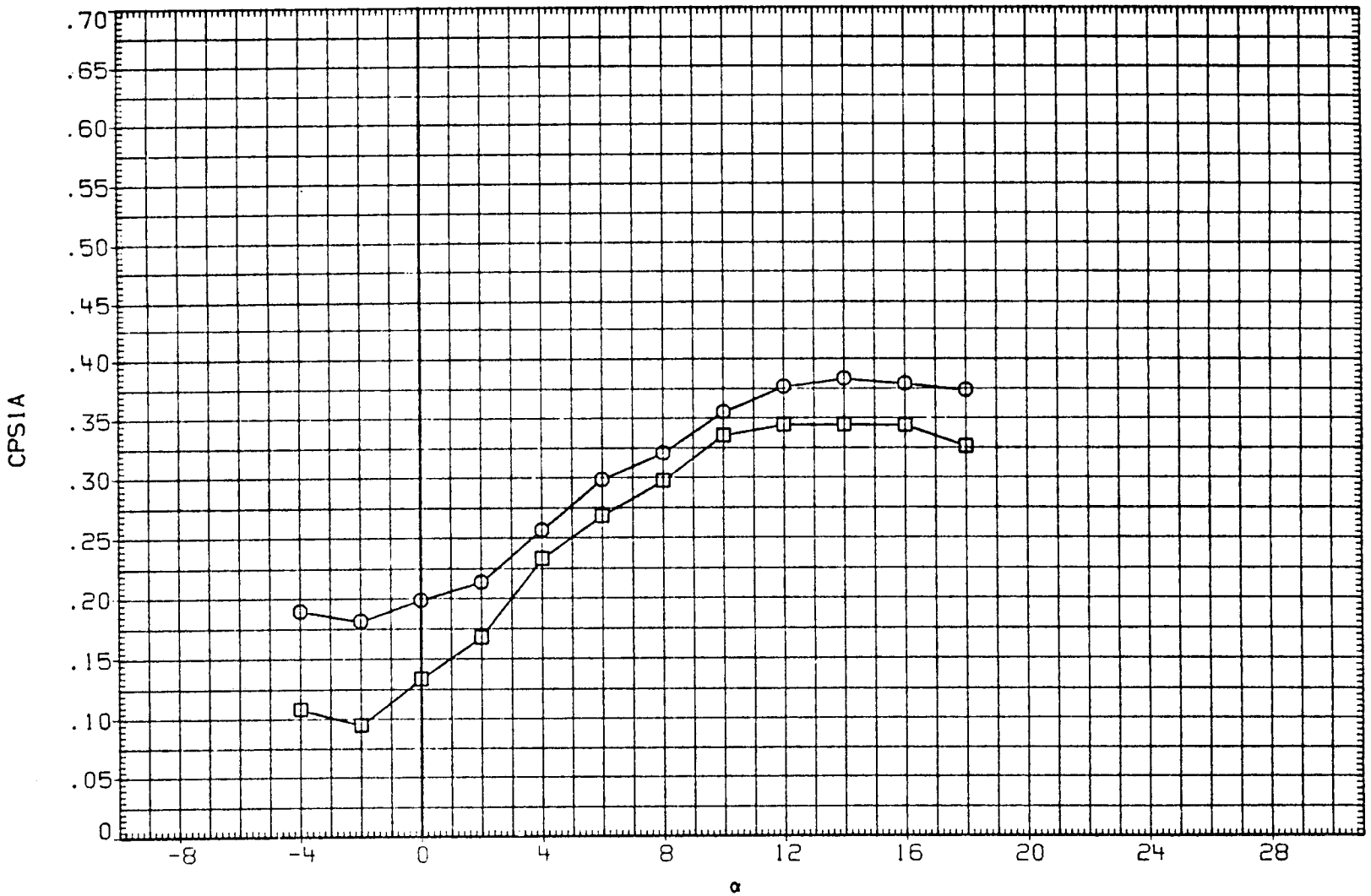


FIG. 4 0A232 SIDE PROBE CPS1A VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON LEFT SIDE

(Q)MACH = 1.55 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVRB14	○	0A232	AEDC 16T TF431	LA .2A		RFN.1S	.000	.000
AVRB15	□	0A232	AEDC 16T TF431	LA .2A		RFN.1S	2.000	.000

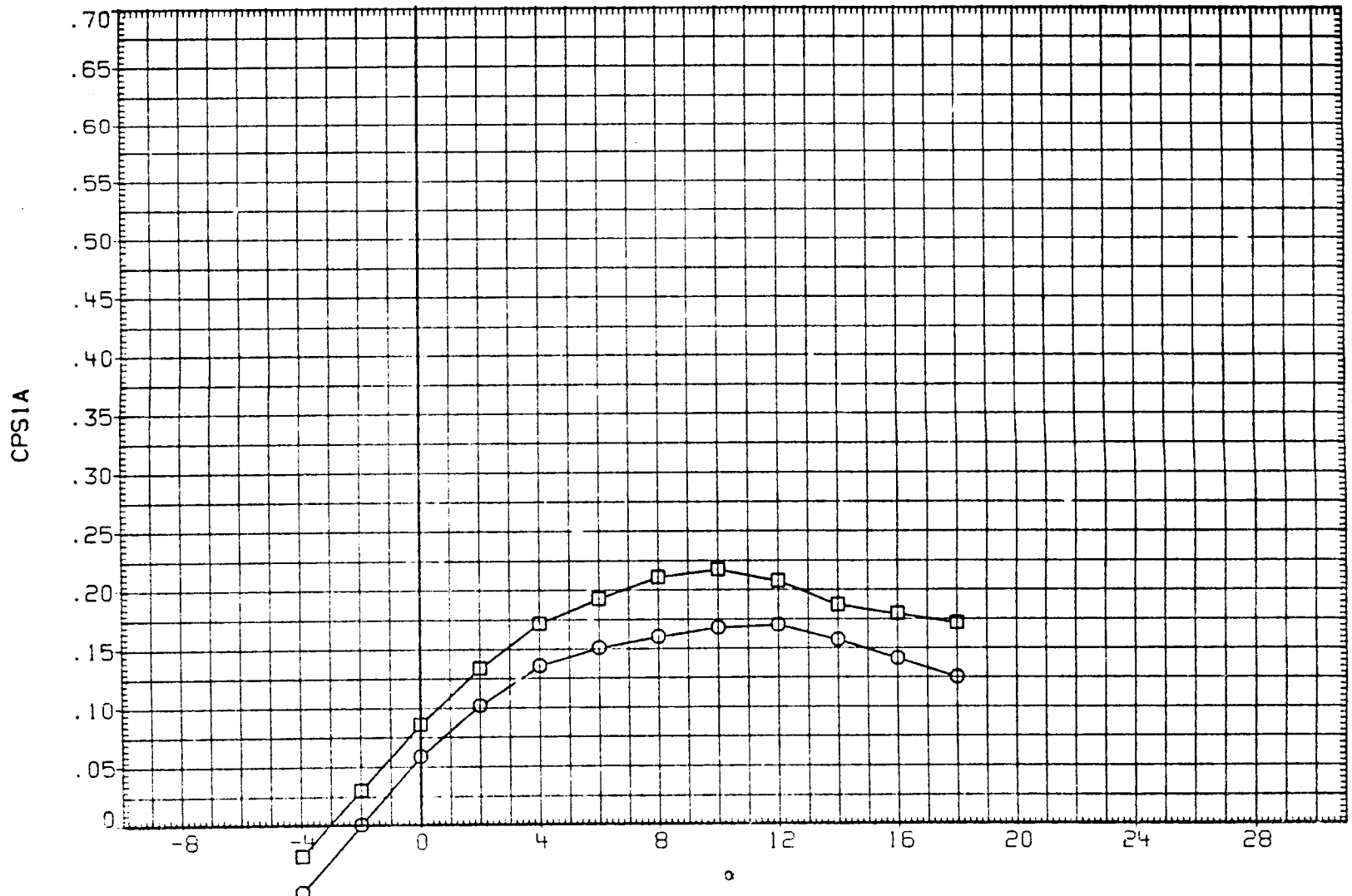


FIG. 5 0A232 SIDE PROBE CPS1A VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE

(A)MACH = .20 DATE 03 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRB14	○	0A232	AEDC 16T TF431	LA .2A	RFN.15	.000	.000
AVRB15	□	0A232	AEDC 16T TF431	LA .2A	RFN.15	2.000	.000

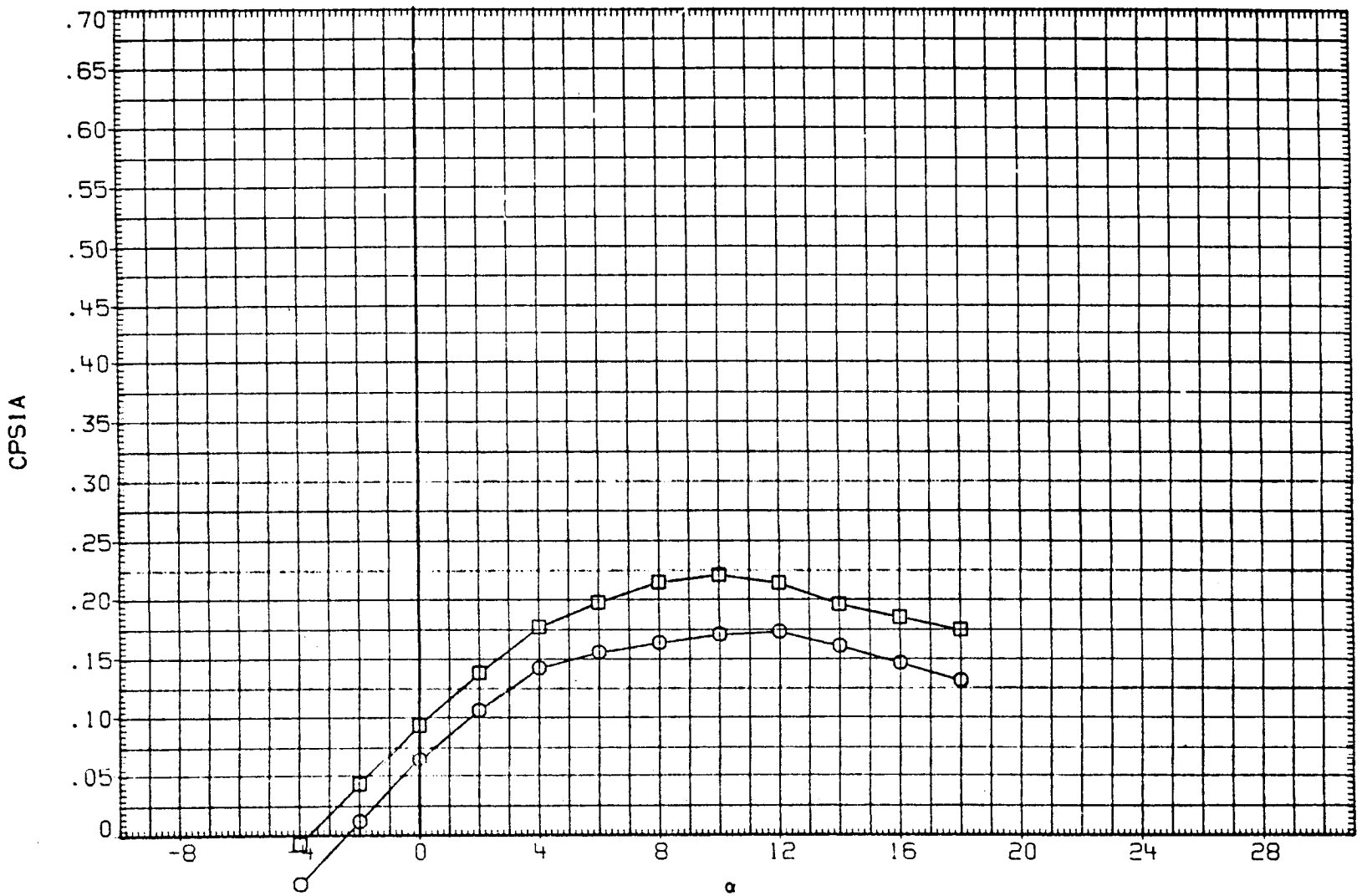


FIG. 5 0A232 SIDE PROBE CPS1A VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE

(B)MACH = .25 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVR814	○	0A232	AEDC 16T TF431	LA .2A	RFN.1S	.000	.000
AVR815	□	0A232	AEDC 16T TF431	LA .2A	RFN.1S	2.000	.000

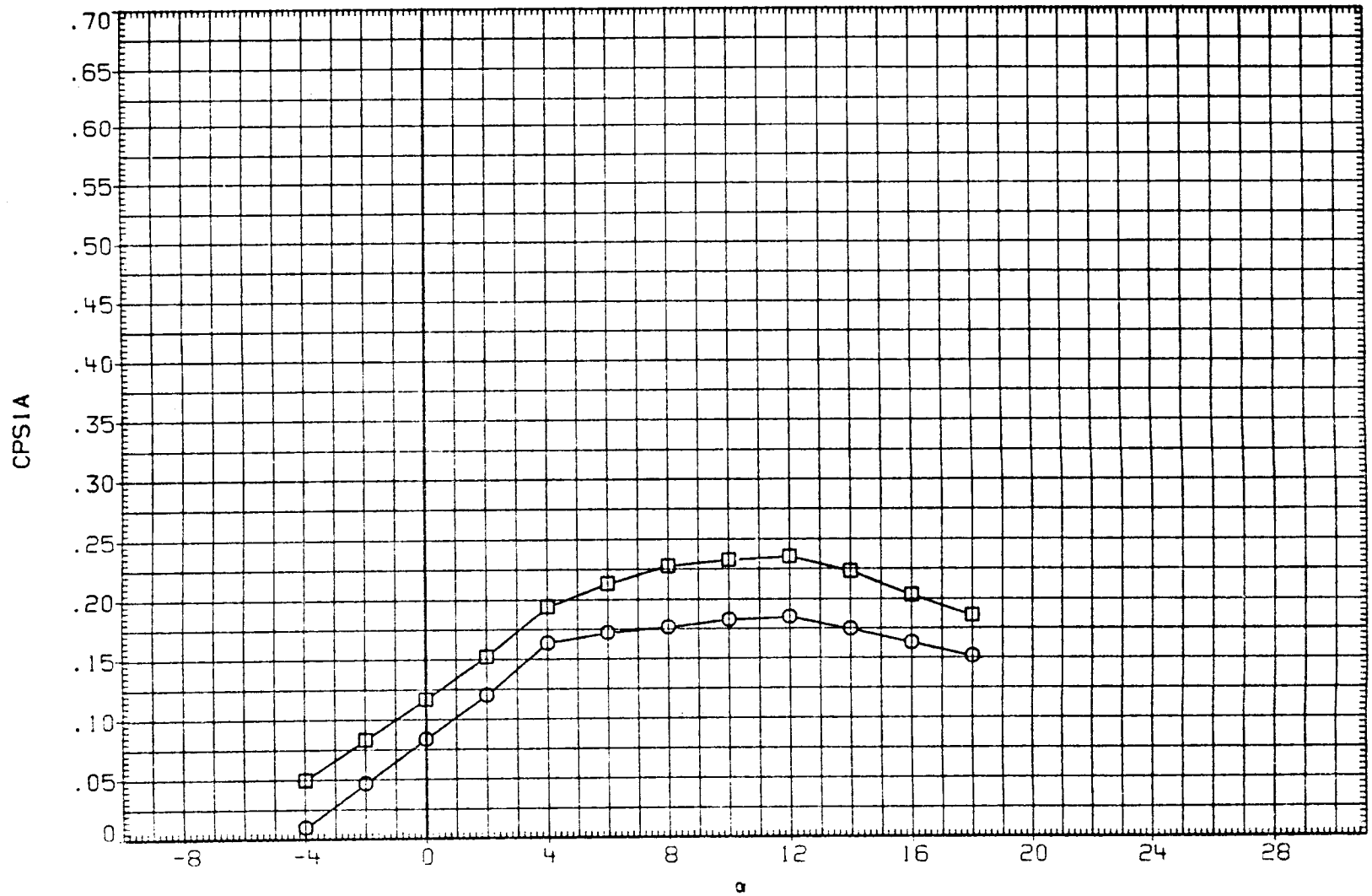


FIG. 5 0A232 SIDE PROBE CPSIA VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE

(C)MACH = .40 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRB14	○	0A232	AEDC 16T TF431	LA .2A	RFN.1S	.000	.000
AVRB15	□	0A232	AEDC 16T TF431	LA .2A	RFN.1S	2.000	.000

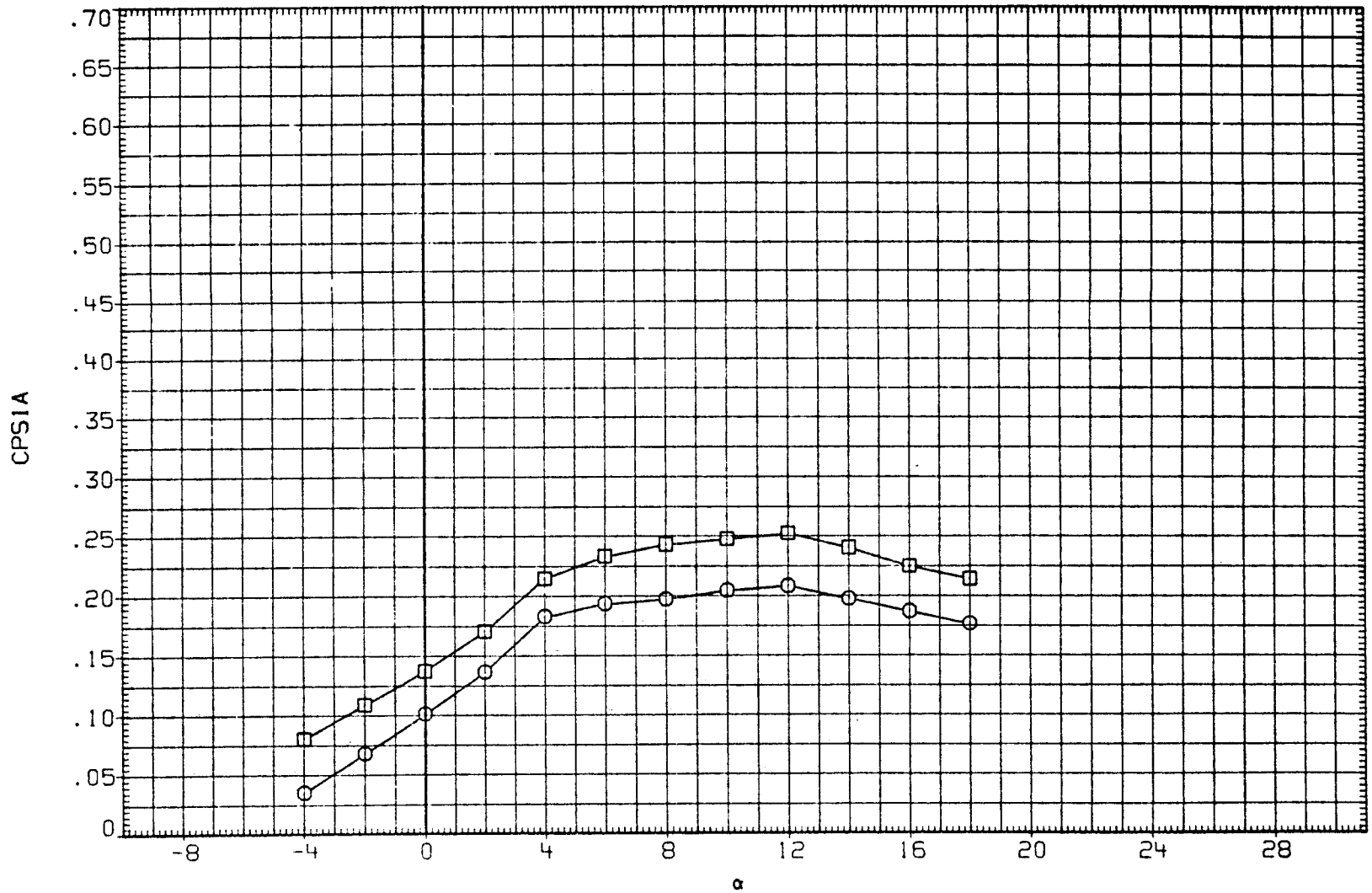


FIG. 5 0A232 SIDE PROBE CPS1A VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE

(D)MACH = .60 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRB14	○	0A232	AEDC 16T TF431	LA .2A	RFN.1S	.000	.000
AVRB15	□	0A232	AEDC 16T TF431	LA .2A	RFN.1S	2.000	.000

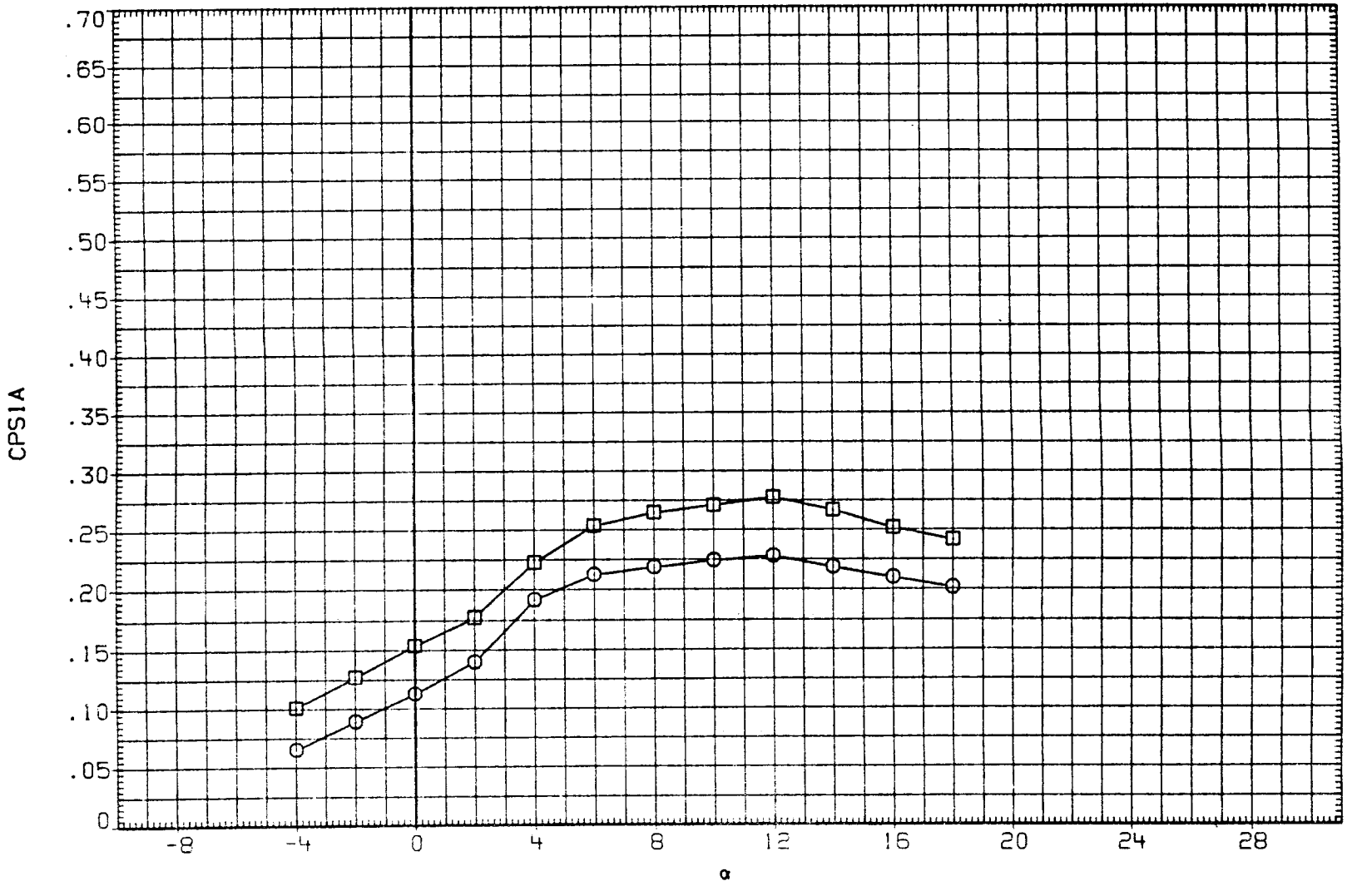


FIG. 5 0A232 SIDE PROBE CPS1A VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE

(E)MACH = .70 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRB14	○	0A232	AEDC 16T TF431	LA .2A	RFN.1S	.000	.000
AVRB15	□	0A232	AEDC 16T TF431	LA .2A	RFN.1S	2.000	.000

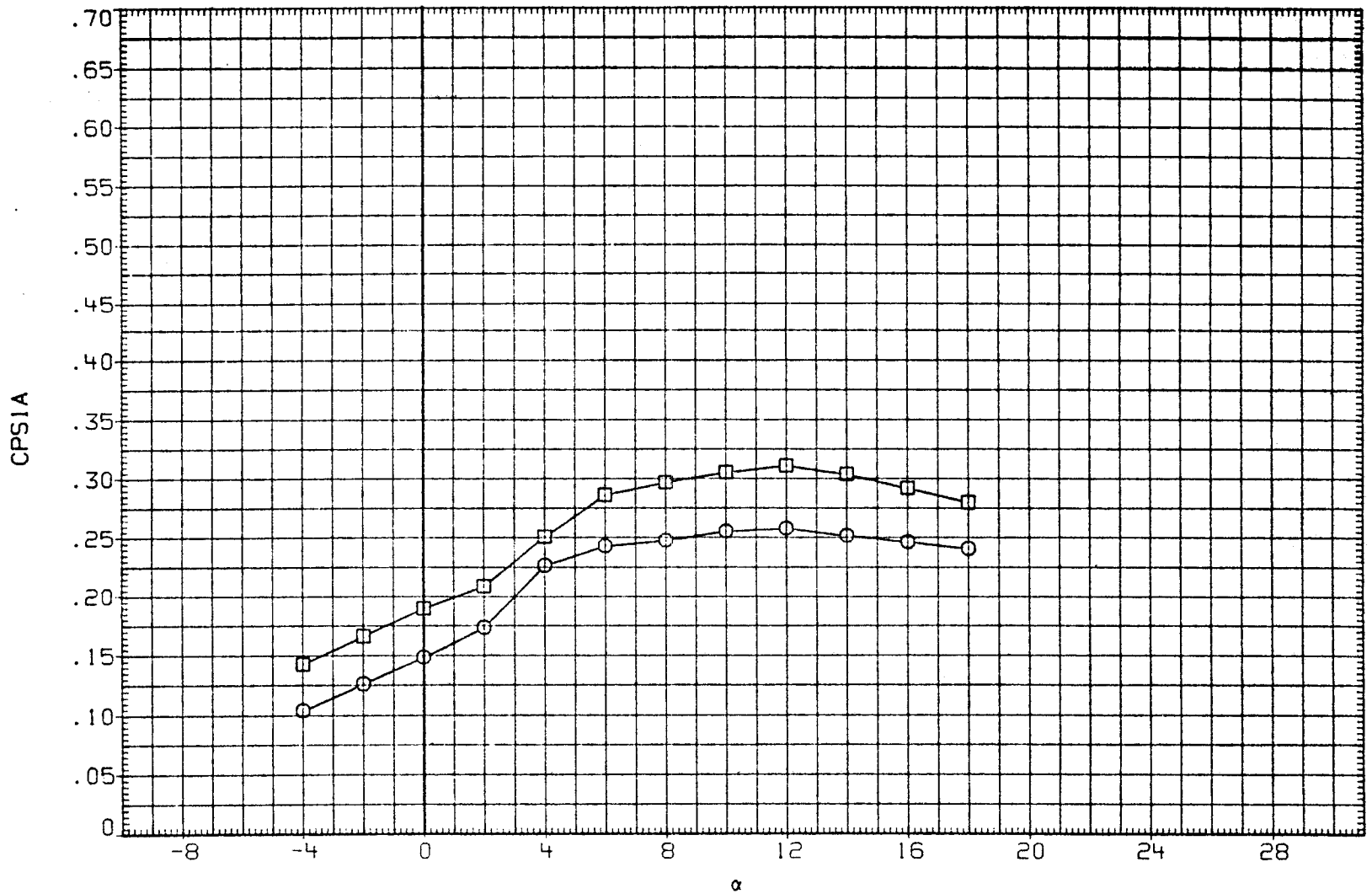


FIG. 5 0A232 SIDE PROBE CPS1A VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON RIGHT SIDE

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVRB14	○	0A232	AEDC 16T TF431	LA .2A	RFN.1S		.000	.000
AVRB15	□	0A232	AEDC 16T TF431	LA .2A	RFN.1S		2.000	.000

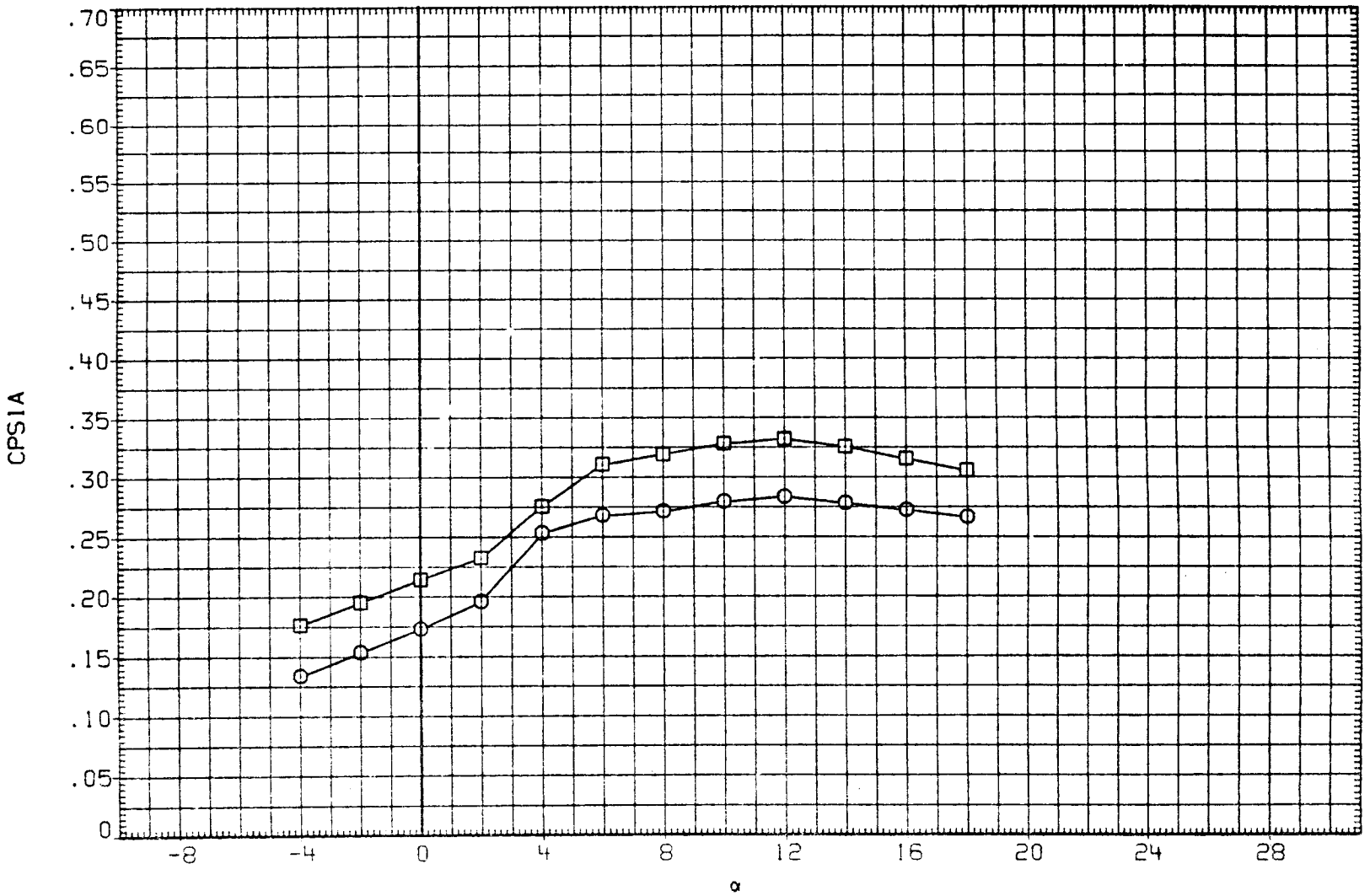


FIG. 5 0A232 SIDE PROBE CPS1A VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON RIGHT SIDE

(G)MACH = .85 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVR814	○	0A232	AEDC 16T TF431	LA .2A	RFN.1S	.000	.000
AVR815	□	0A232	AEDC 16T TF431	LA .2A	RFN.1S	2.000	.000

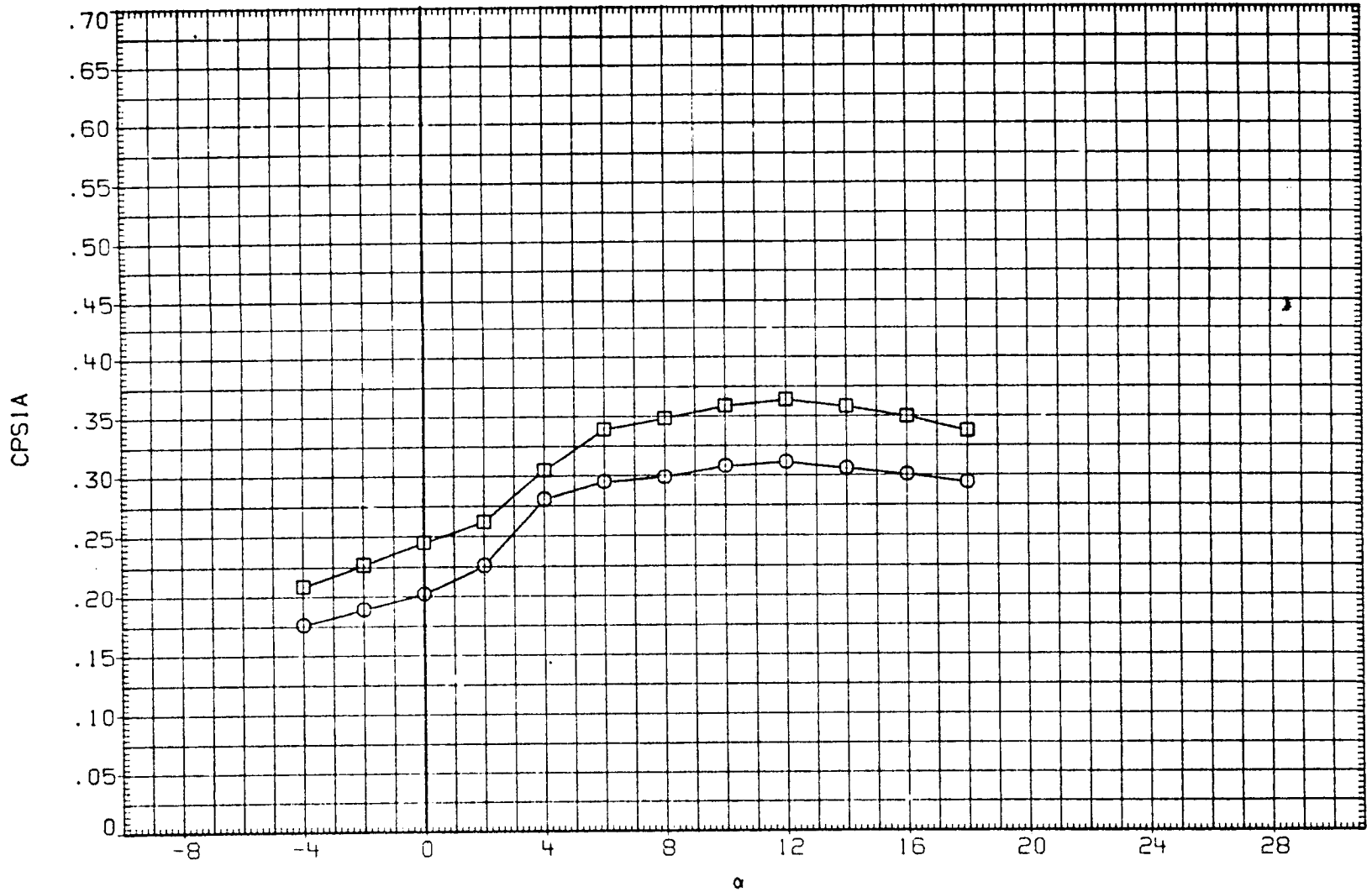


FIG. 5 0A232 SIDE PROBE CPS1A VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON RIGHT SIDE

(H) MACH = .90

DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRB14	○	0A232	AEDC 16T TF431	LA .2A	RFN.1S	.000	.000
AVRB15	□	0A232	AEDC 16T TF431	LA .2A	RFN.1S	2.000	.000

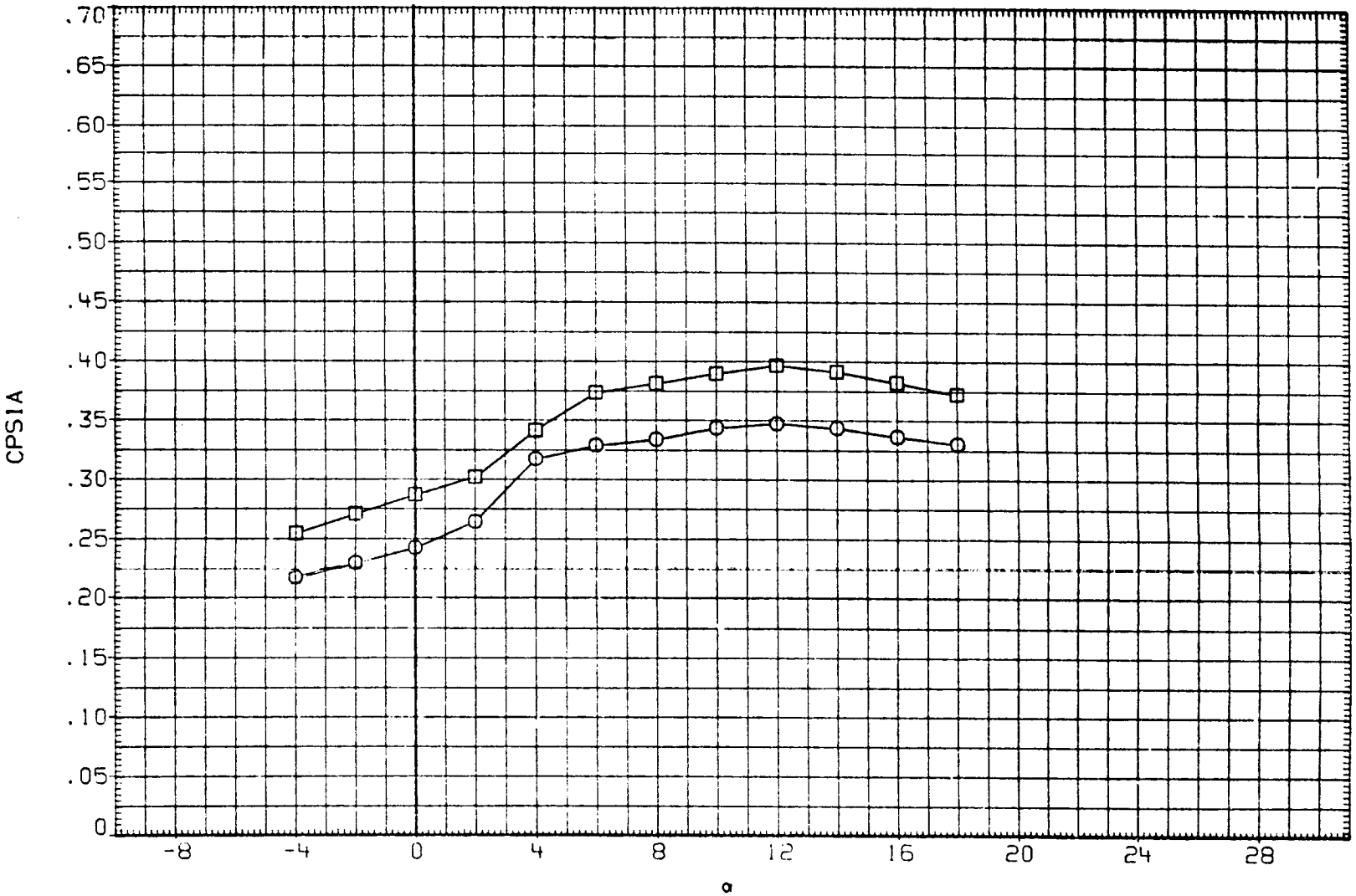


FIG. 5 0A232 SIDE PROBE CPS1A VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON RIGHT SIDE

( ) MACH = .95 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRB14	○	0A232	AEDC 16T TF431	LA .2A	RFN.1S	.000	.000
AVRB15	□	0A232	AEDC 16T TF431	LA .2A	RFN.1S	2.000	.000

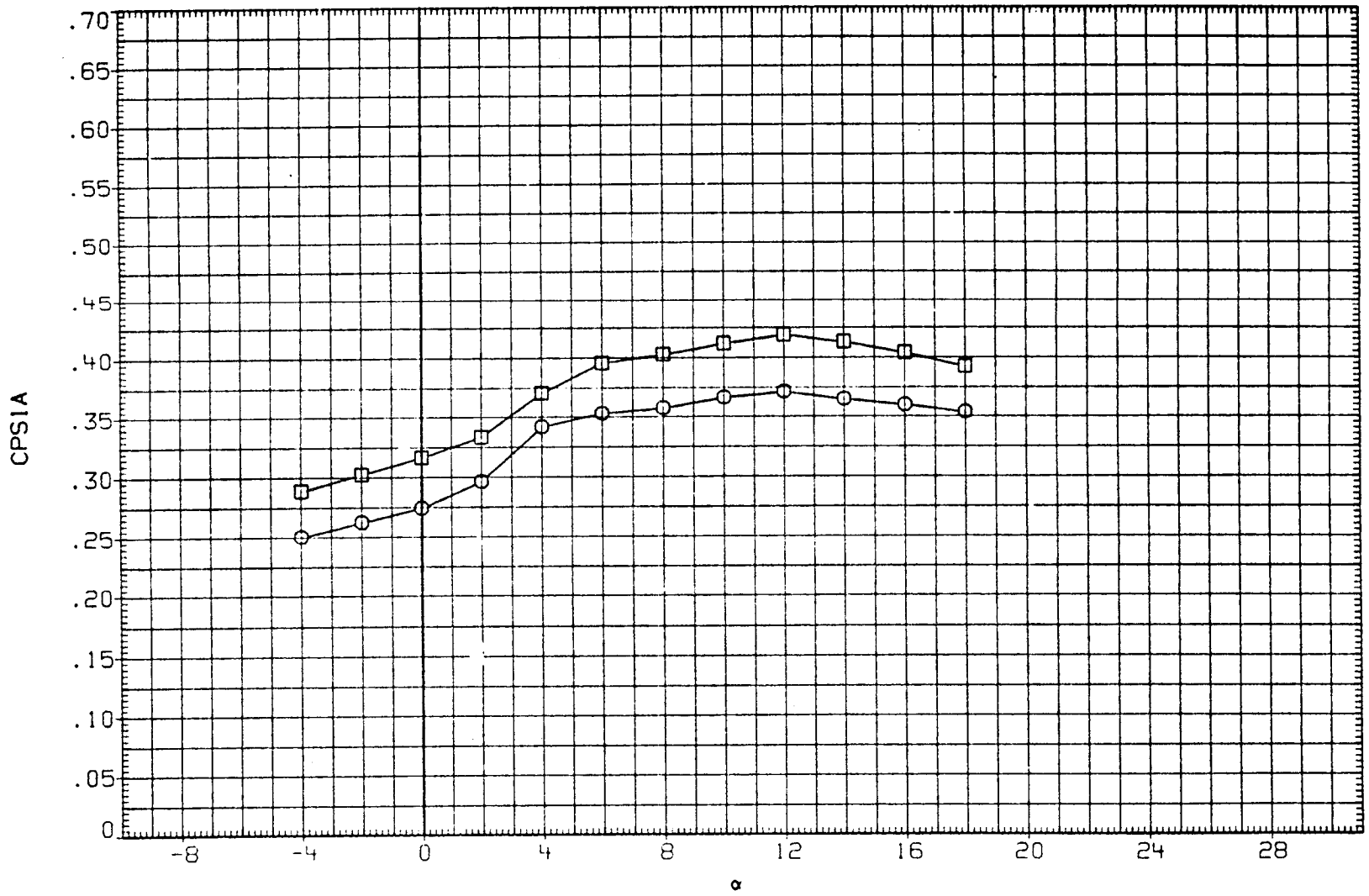


FIG. 5 0A232 SIDE PROBE CPS1A VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE

(J)MACH = .98 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRB14	○	0A232	AEDC 16T TF431	LA .2A	RFN.1S	.000	.000
AVRB15	□	0A232	AEDC 16T TF431	LA .2A	RFN.1S	2.000	.000

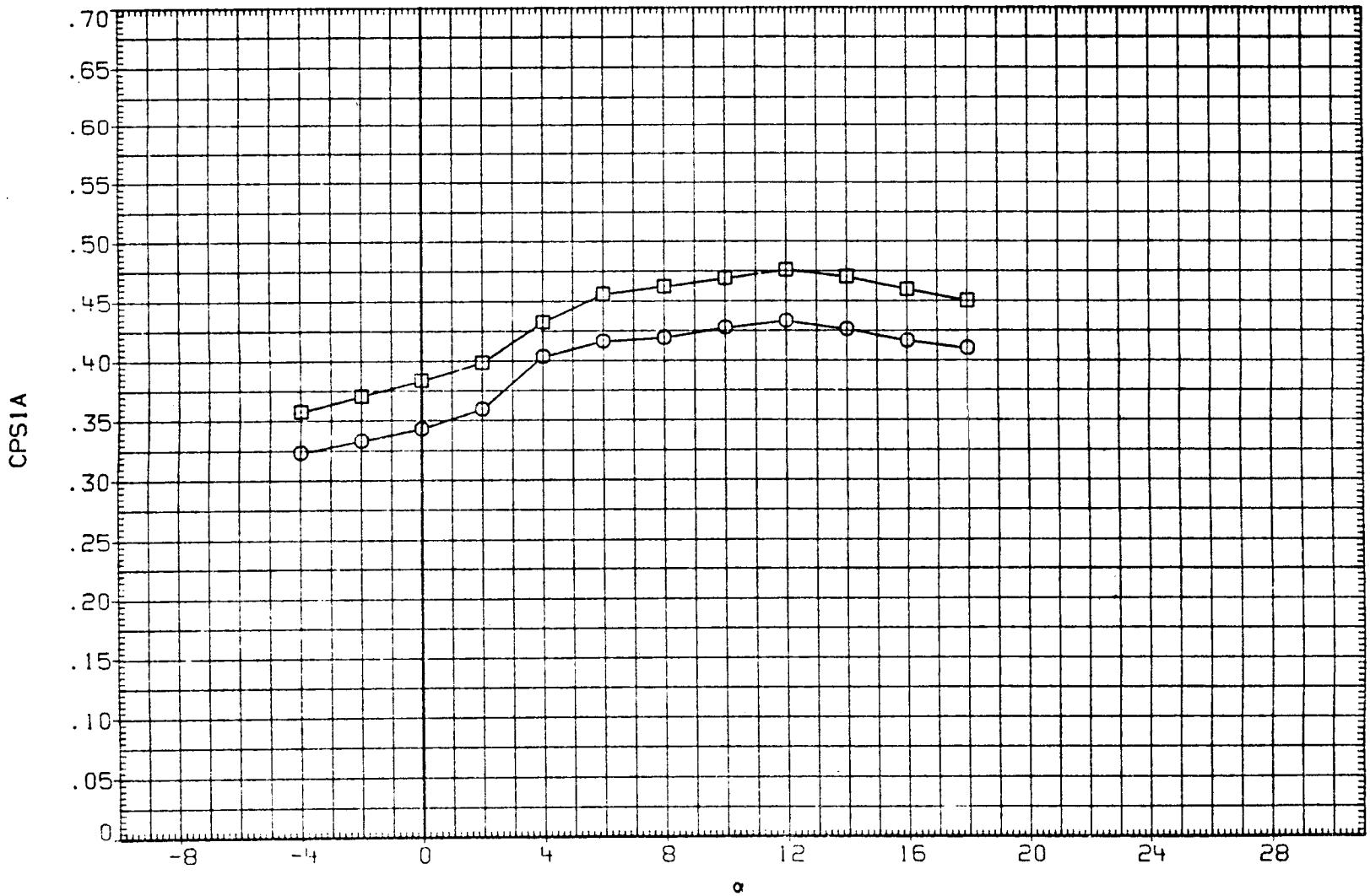


FIG. 5 0A232 SIDE PROBE CPS1A VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE

(K)MACH = 1.05 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRB14	○	0A232	AEDC 16T TF431	LA .2A	RFN.IS	.000	.000
AVRB15	□	0A232	AEDC 16T TF431	LA .2A	RFN.IS	2.000	.000

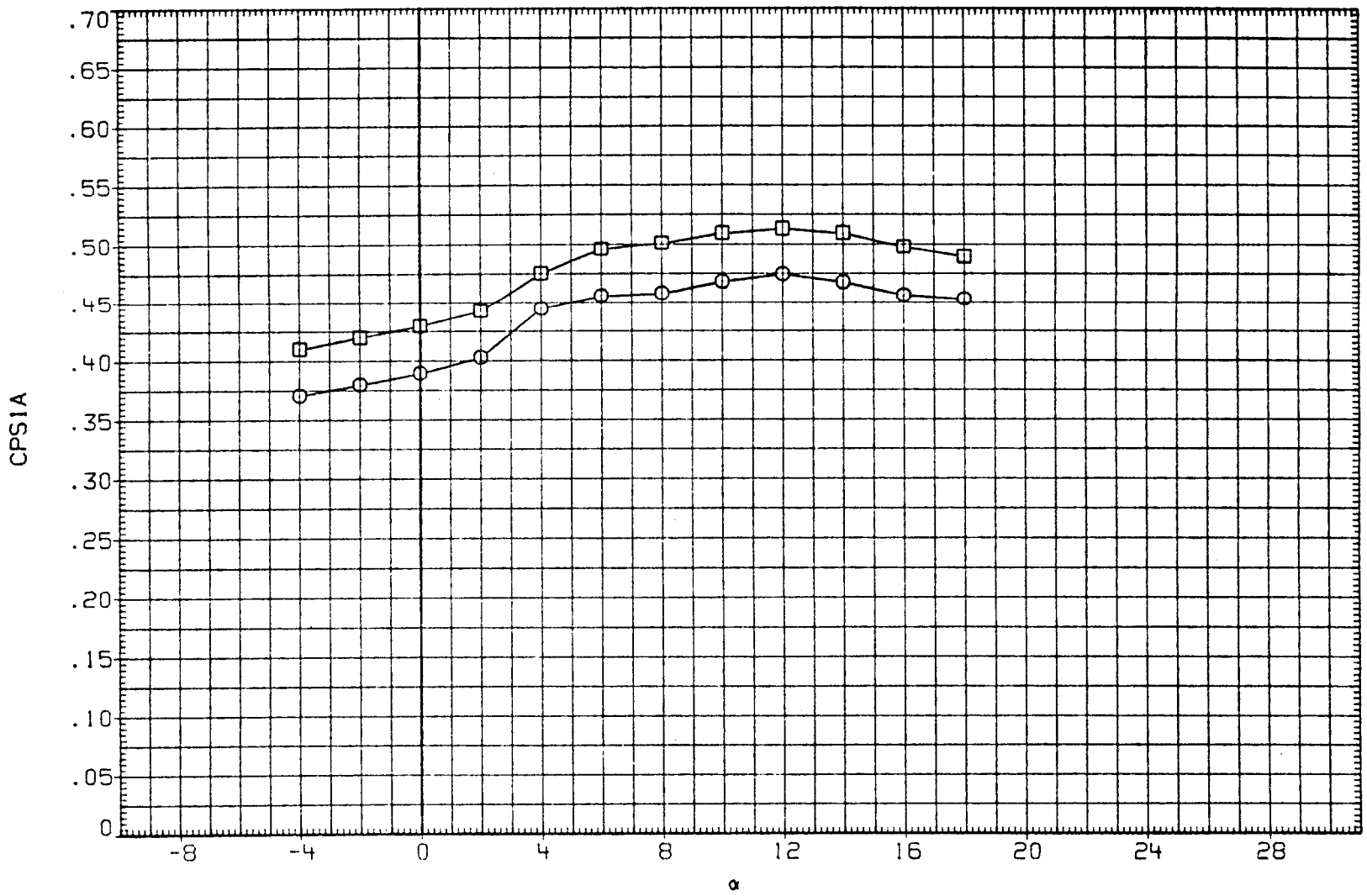


FIG. 5 0A232 SIDE PROBE CPS1A VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE

(L)MACH = 1.10 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRB14	○	0A232	AEDC 16T TF431	LA .2A	RFN.1S	.000	.000
AVRB15	□	0A232	AEDC 16T TF431	LA .2A	RFN.1S	2.000	.000

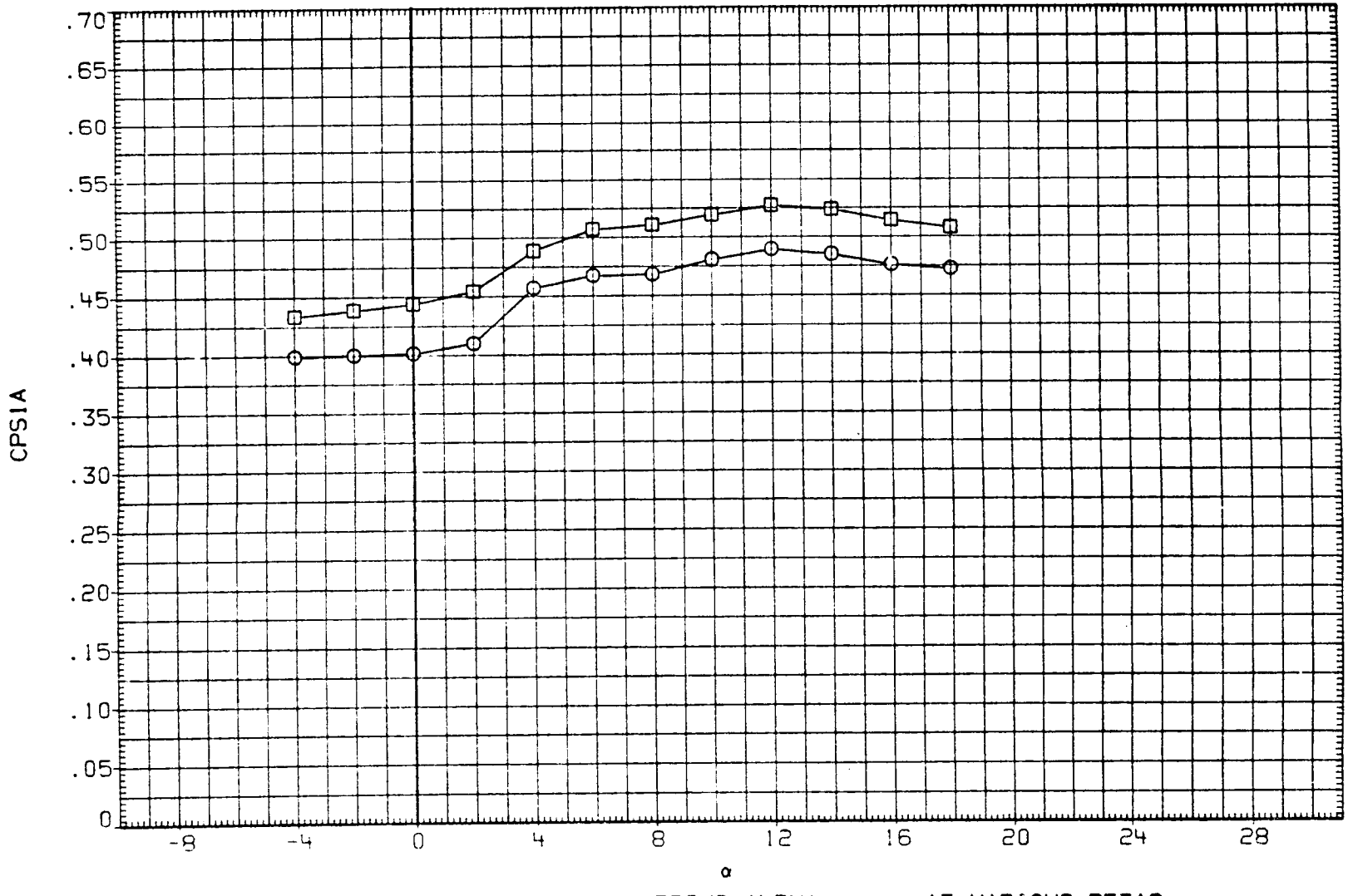


FIG. 5 0A232 SIDE PROBE CPS1A VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON RIGHT SIDE

(M)MACH = 1.15 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB14	○	0A232 AEDC 16T TF431 LA .2A RFN.1S	.000	.000
AVRB15	□	0A232 AEDC 16T TF431 LA .2A RFN.1S	2.000	.000

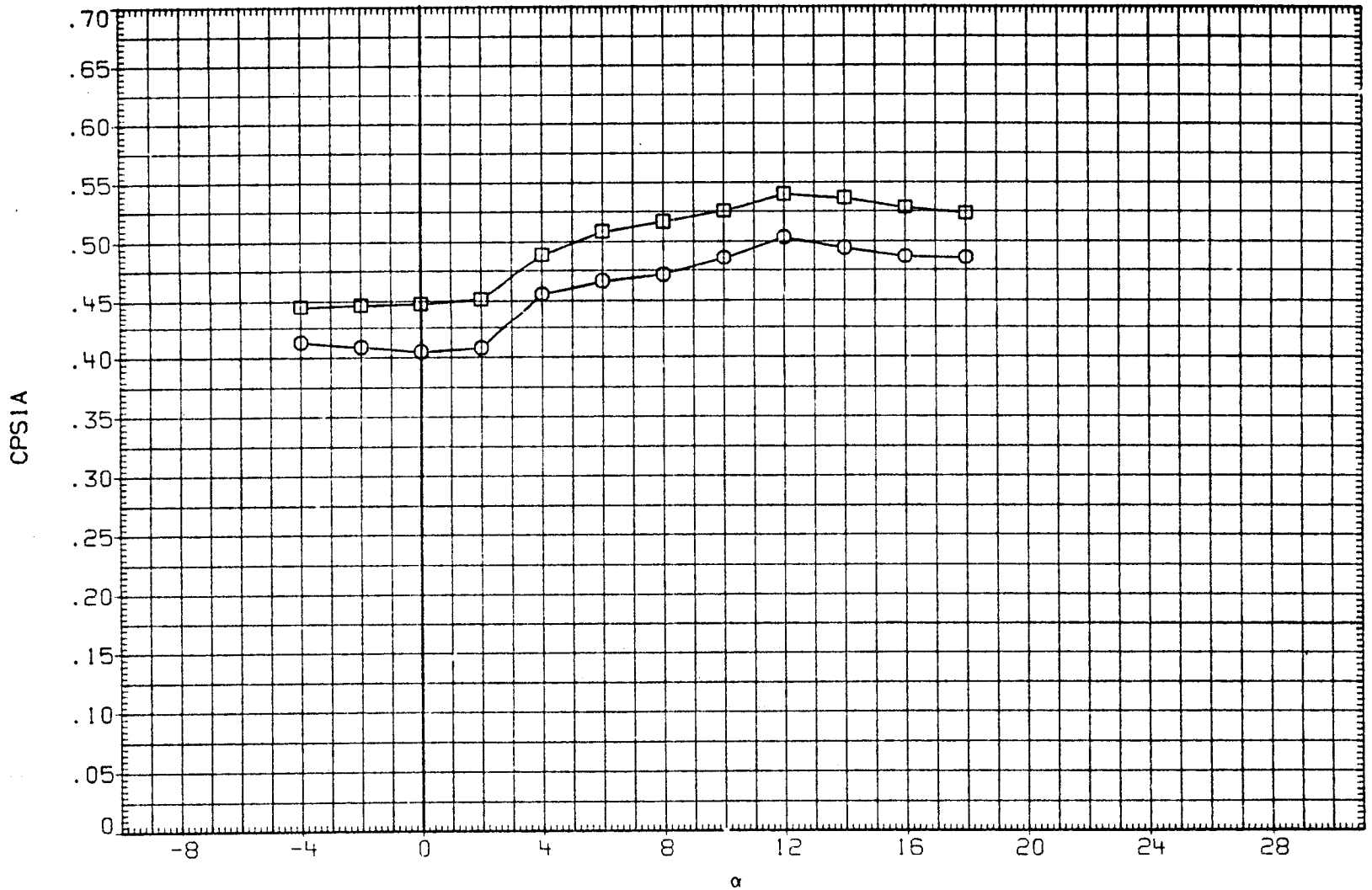


FIG. 5 0A232 SIDE PROBE CPS1A VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE

(N)MACH = 1.20 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVRB14	○	0A232	AEDC 16T TF431	LA .2A	RFN.1S		.000	.000
AVRB15	□	0A232	AEDC 16T TF431	LA .2A	RFN.1S		2.000	.000

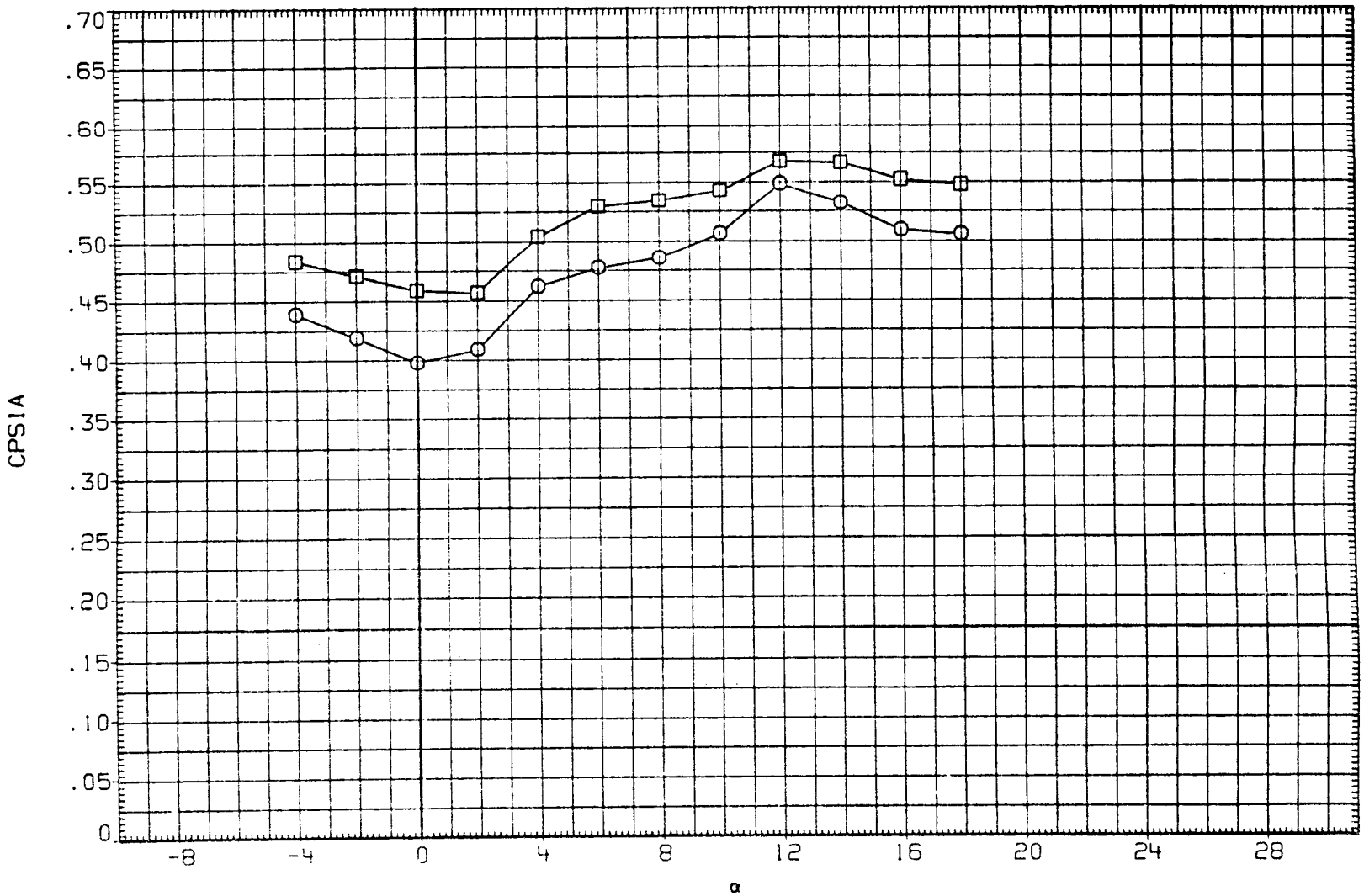


FIG. 5 0A232 SIDE PROBE CPS1A VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE

(C)MACH = 1.30 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRB14	○	0A232	AEDC 16T TF431	LA .2A	RFN.1S	.000	.000
AVRB15	□	0A232	AEDC 16T TF431	LA .2A	RFN.1S	2.000	.000

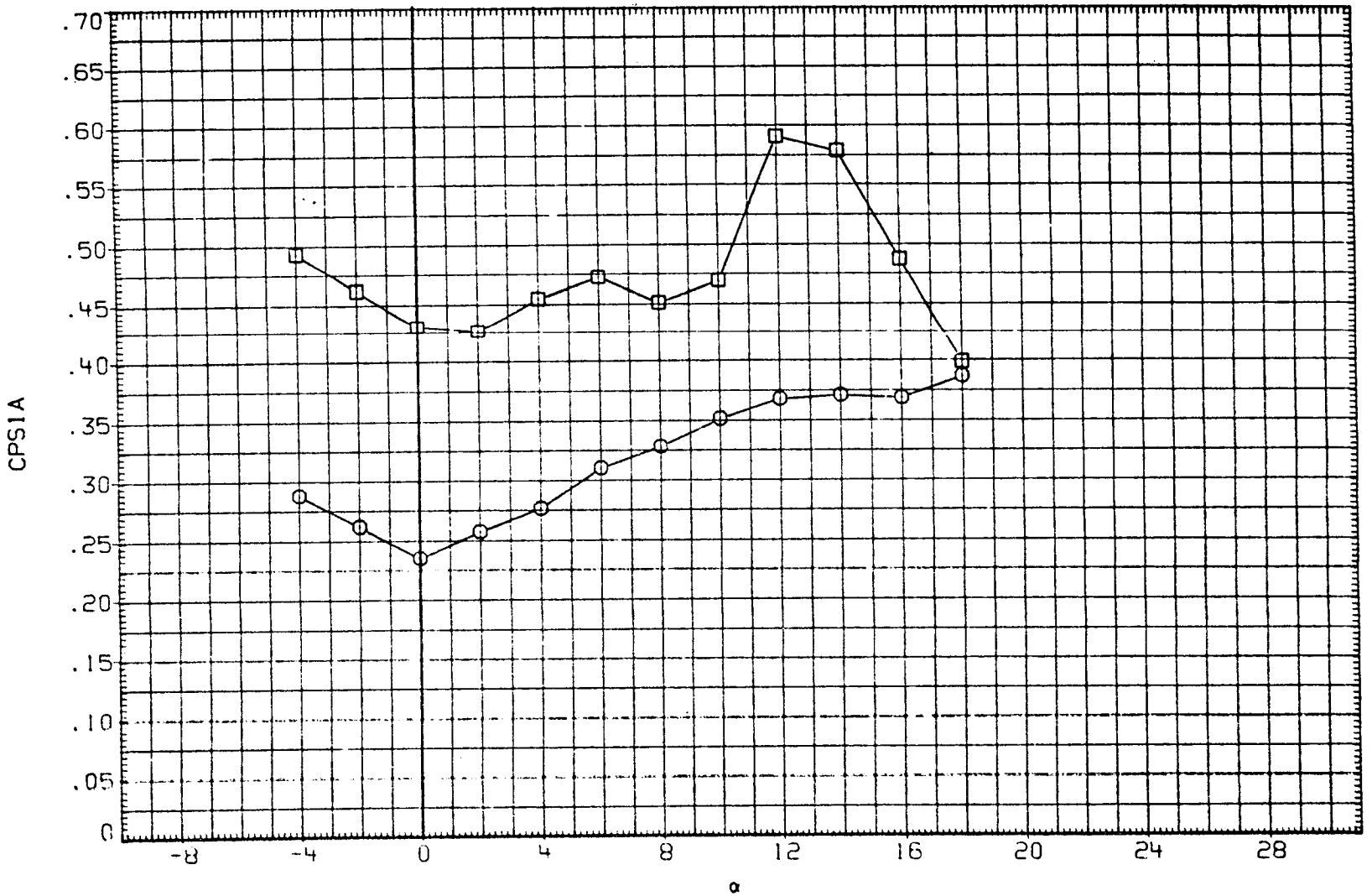


FIG. 5 0A232 SIDE PROBE CPS1A VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON RIGHT SIDE

(P)MACH = 1.40 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRB14	○	0A232	AEDC 16T TF431	LA .2A	RFN.15	.000	.000
AVRB15	□	0A232	AEDC 16T TF431	LA .2A	RFN.15	2.000	.000

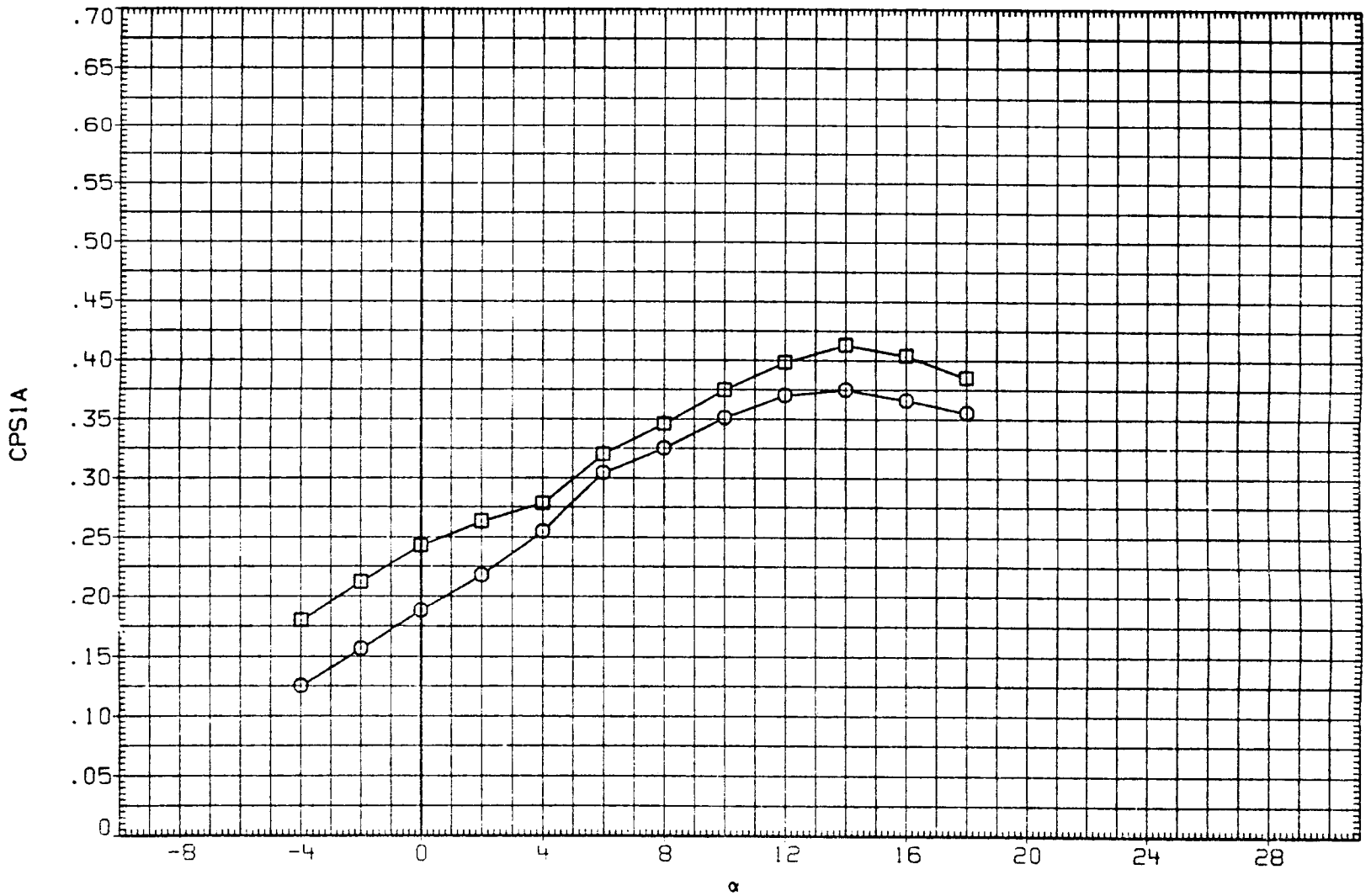


FIG. 5 0A232 SIDE PROBE CPS1A VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE

(Q)MACH = 1.55 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRB04	○	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	.000	.000
AVRB06	□	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	2.000	.000

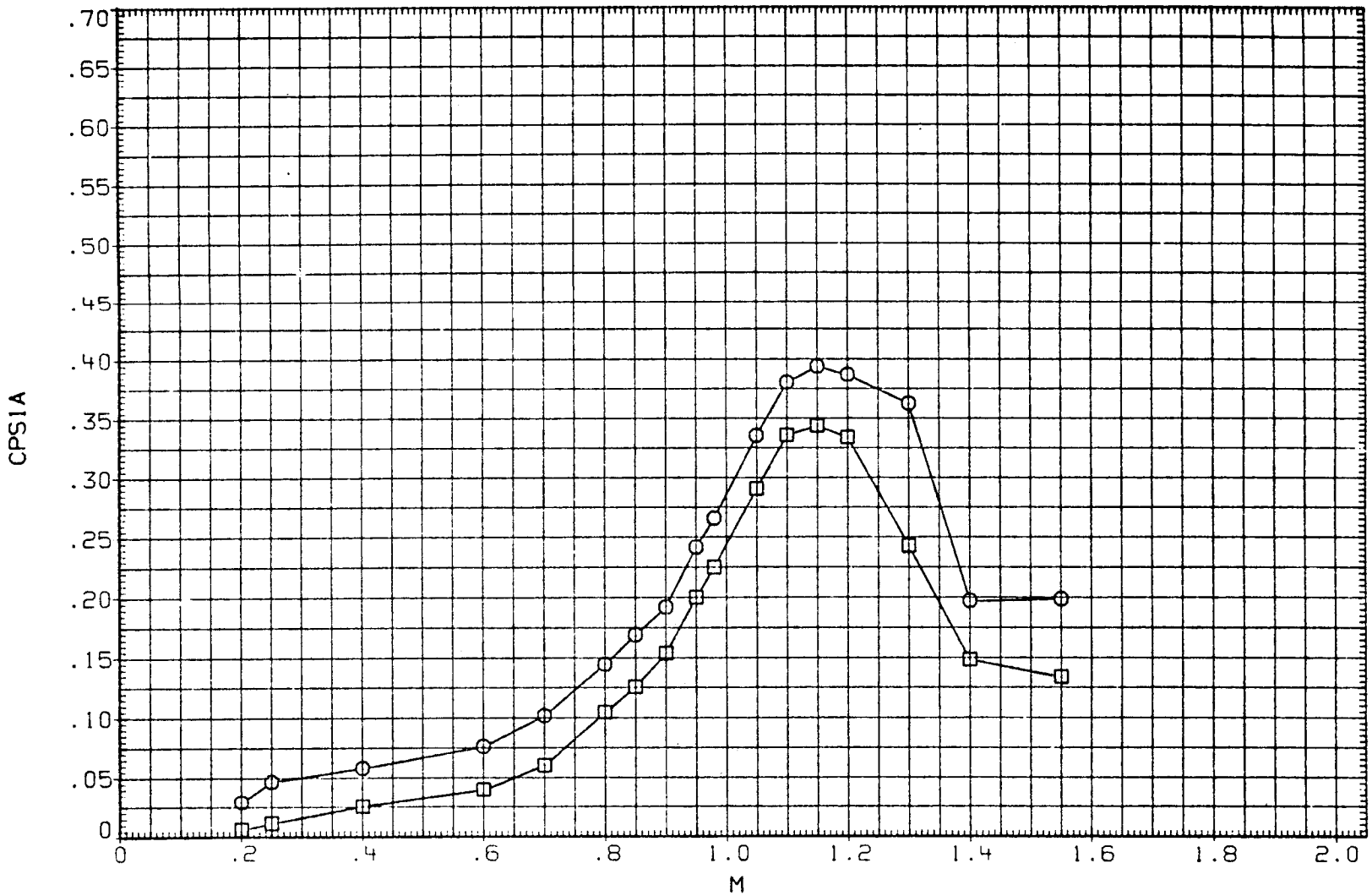


FIG. 6 0A232 SIDE PROBE CPS1A VERSUS MACH NUMBER AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON LEFT SIDE

(A) ALPHA = .00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVRB04	○	OA232	AEDC 16T TF431	LFN.1S	RA .2P/S		.000	.000
AVRB06	□	OA232	AEDC 16T TF431	LFN.1S	RA .2P/S		2.000	.000

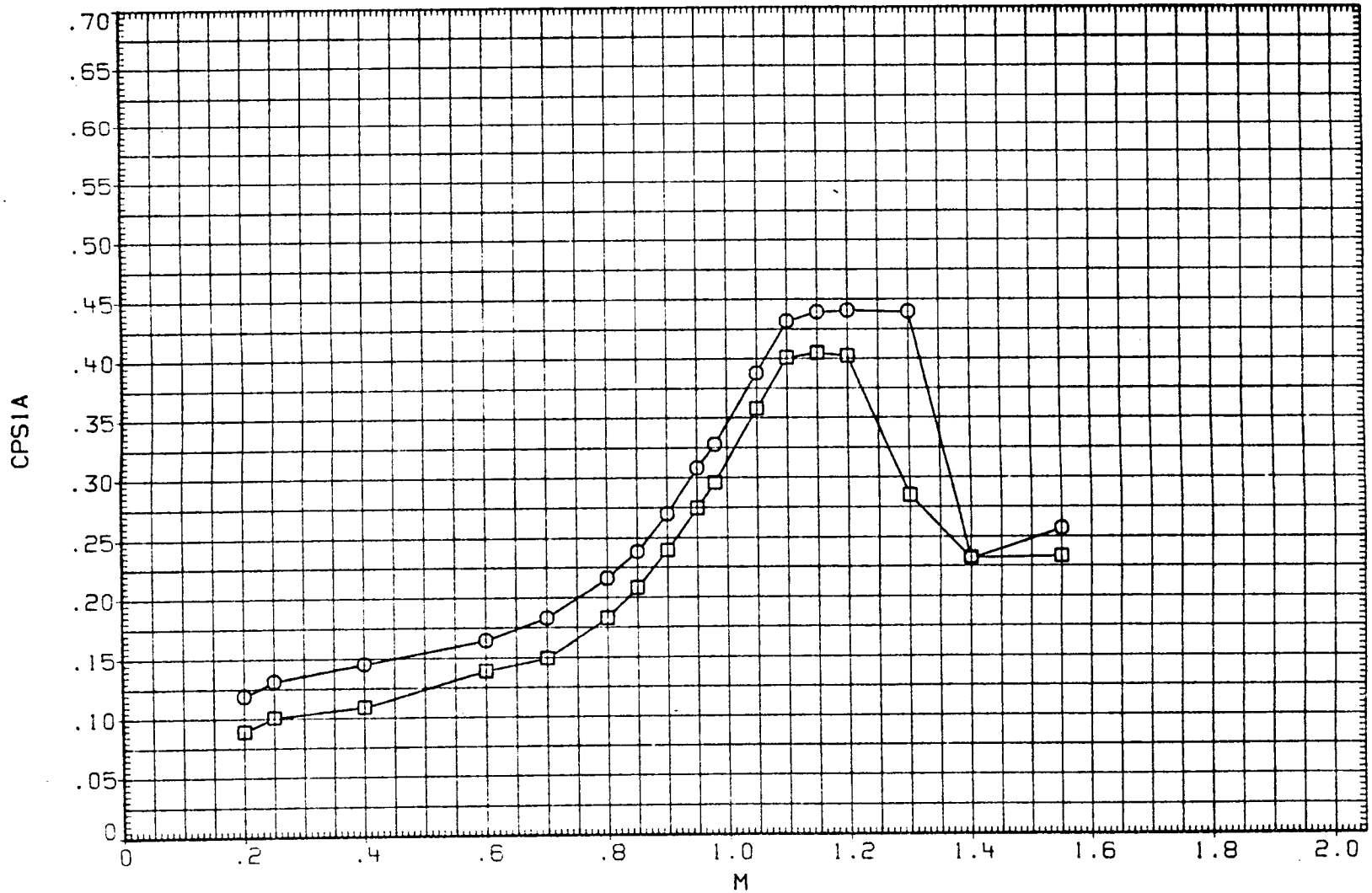


FIG. 6 OA232 SIDE PROBE CPS1A VERSUS MACH NUMBER AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON LEFT SIDE

(B) ALPHA = 4.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVRB04	○	0A232	AEDC	16T	TF431	LFN.1S RA .2P/S	.000	.000
AVRB06	□	0A232	AEDC	16T	TF431	LFN.1S RA .2P/S	2.000	.000

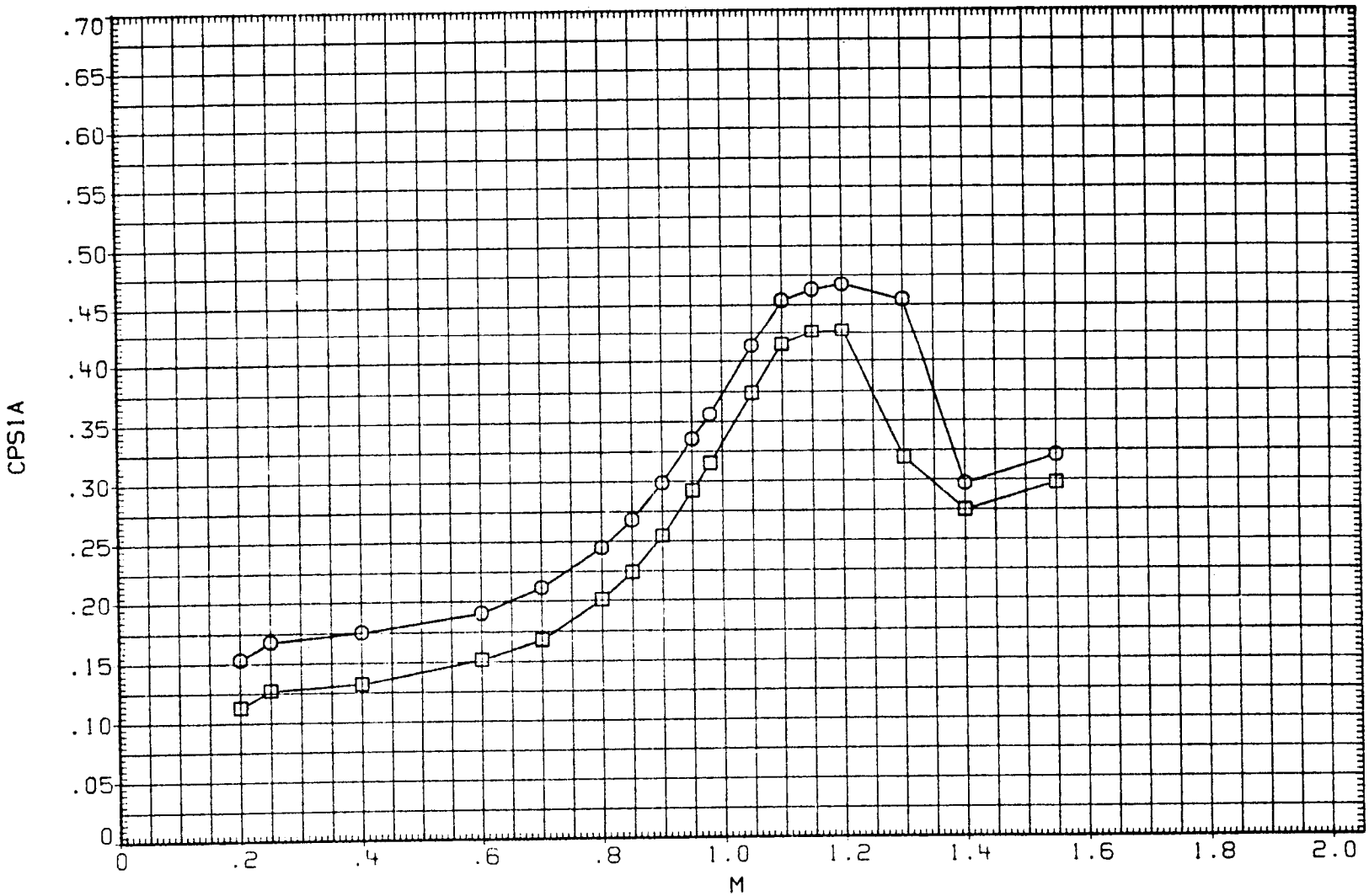


FIG. 6 0A232 SIDE PROBE CPS1A VERSUS MACH NUMBER AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON LEFT SIDE

(C)ALPHA = 8.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRB04	○	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	.000	.000
AVRB06	□	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	2.000	.000

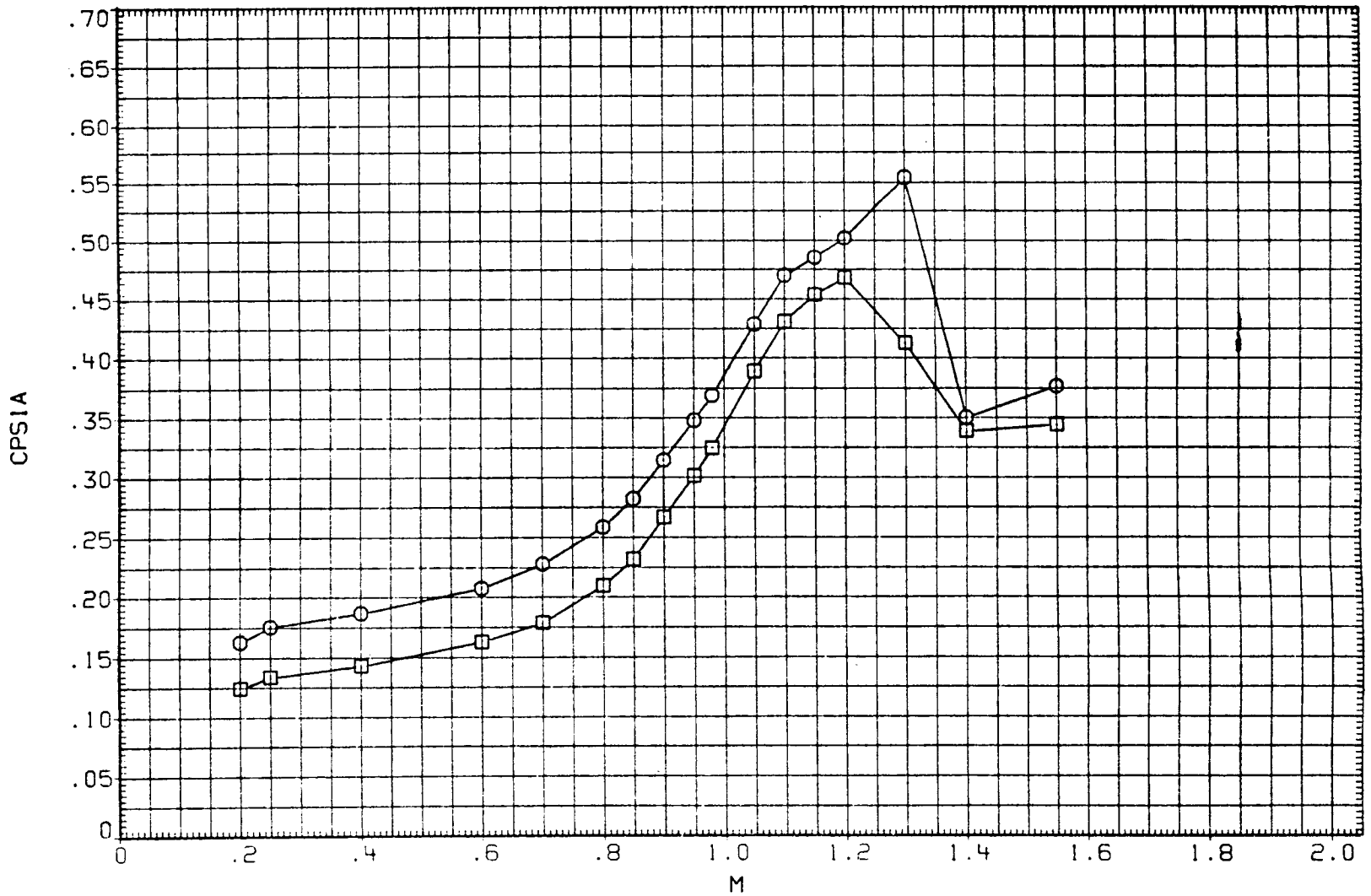


FIG. 6 0A232 SIDE PROBE CPS1A VERSUS MACH NUMBER AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON LEFT SIDE

(D)ALPHA = 12.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRB04	○	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	.000	.000
AVRB06	□	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	2.000	.000

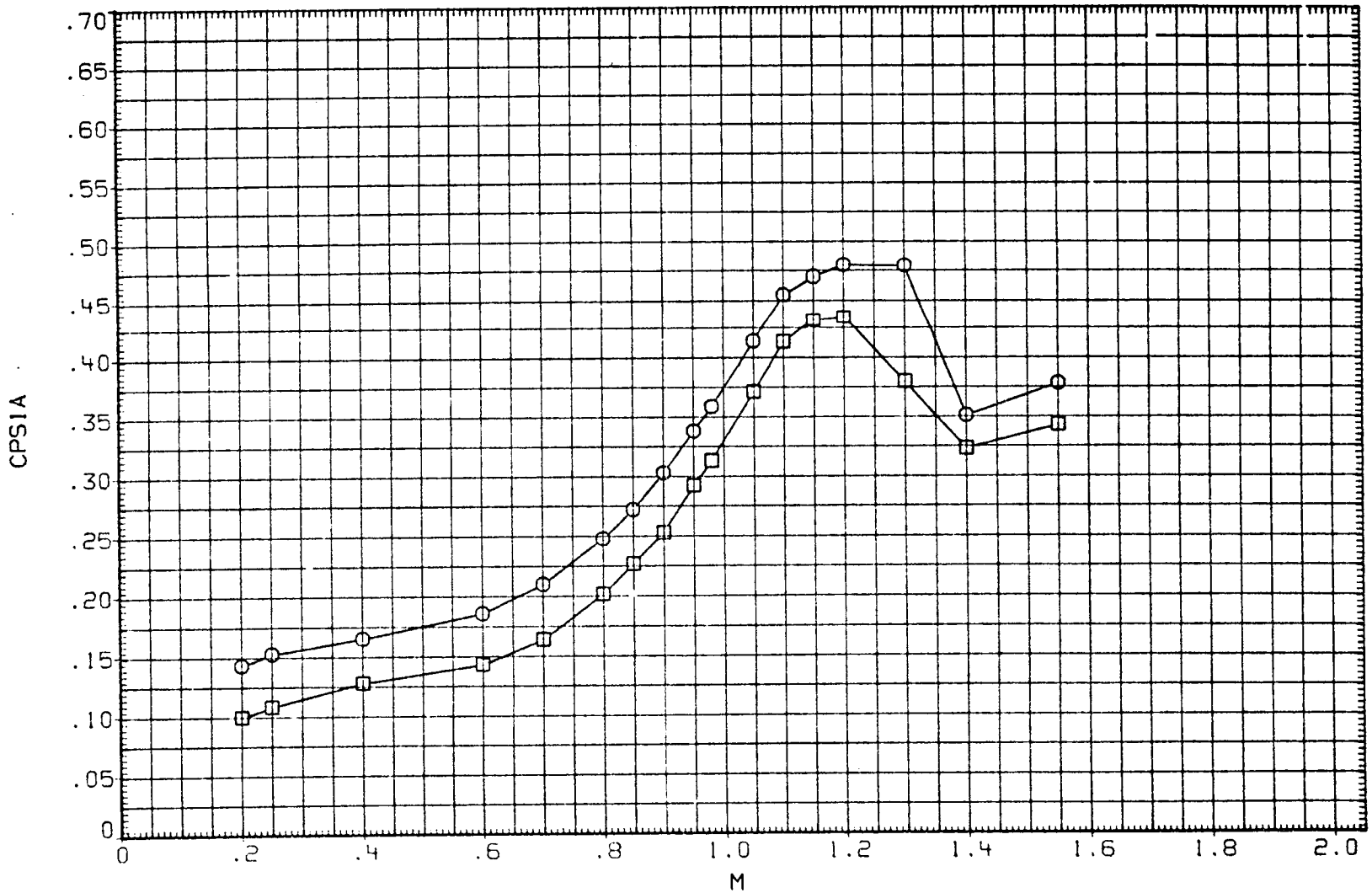


FIG. 6 0A232 SIDE PROBE CPS1A VERSUS MACH NUMBER AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON LEFT SIDE

(E)ALPHA = 16.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRB04	○	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	.000	.000
AVRB06	□	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	2.000	.000

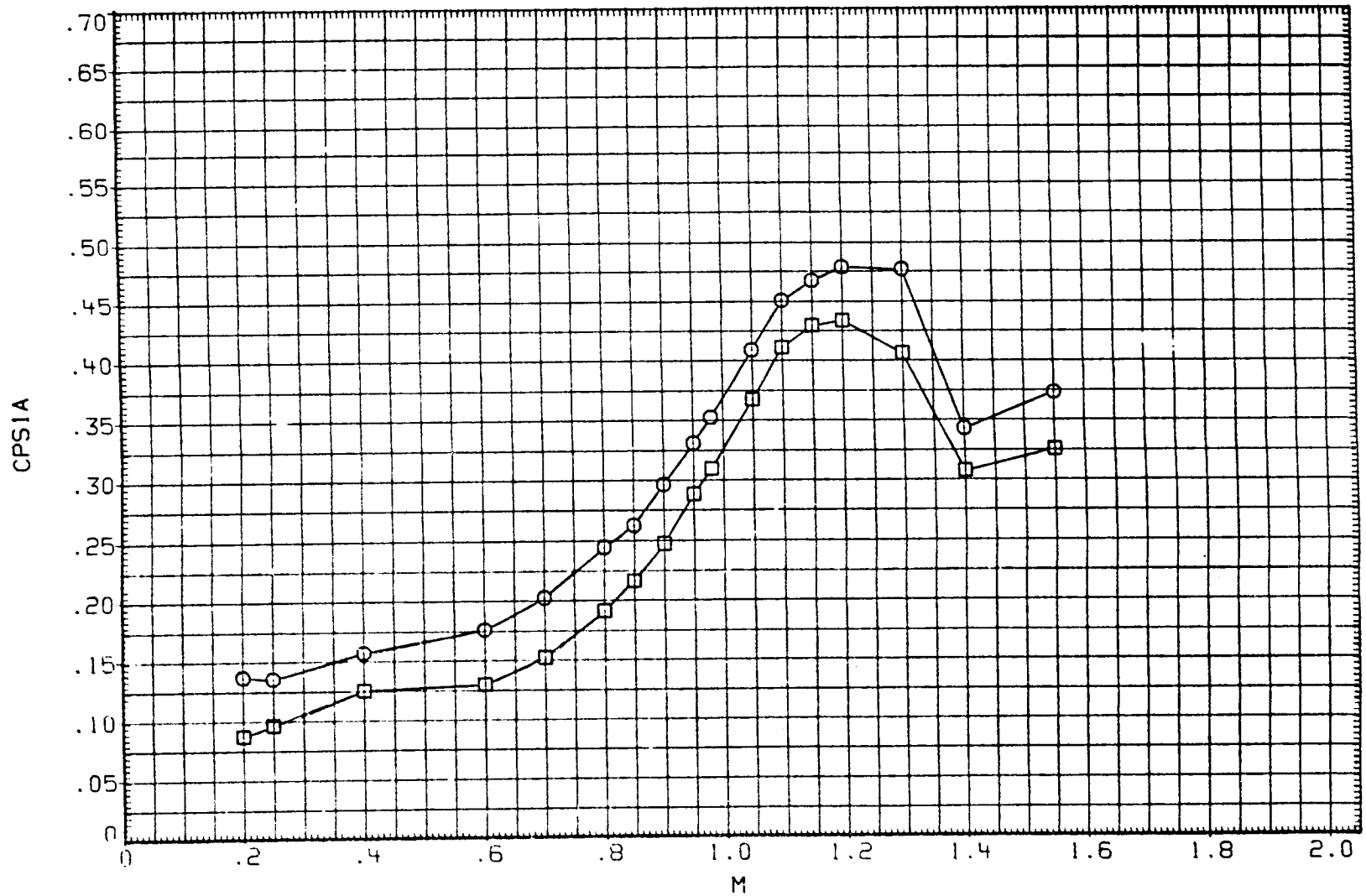


FIG. 6 0A232 SIDE PROBE CPSIA VERSUS MACH NUMBER AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON LEFT SIDE

(F)ALPHA = 18.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRB14	○	0A232	AEDC 16T TF431	LA .2A	RFN.1S	.000	.000
AVRB15	□	0A232	AEDC 16T TF431	LA .2A	RFN.1S	2.000	.000

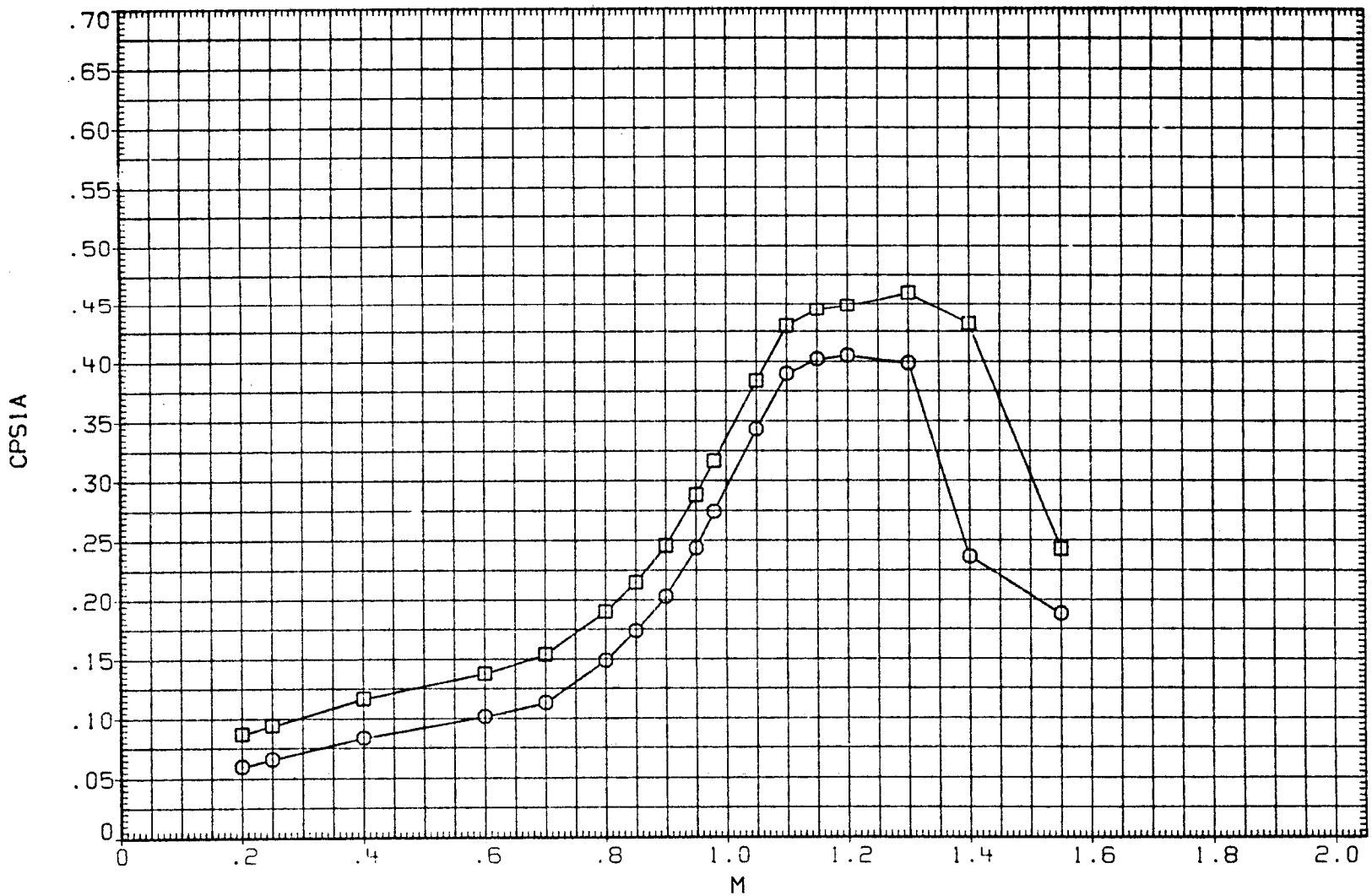


FIG. 7 0A232 SIDE PROBE CPS1A VERSUS MACH NUMBER AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE

(A)ALPHA = .00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRB14	○	0A232	AEDC 16T TF431	LA .2A	RFN.1S	.000	.000
AVRB15	□	0A232	AEDC 16T TF431	LA .2A	RFN.1S	2.000	.000

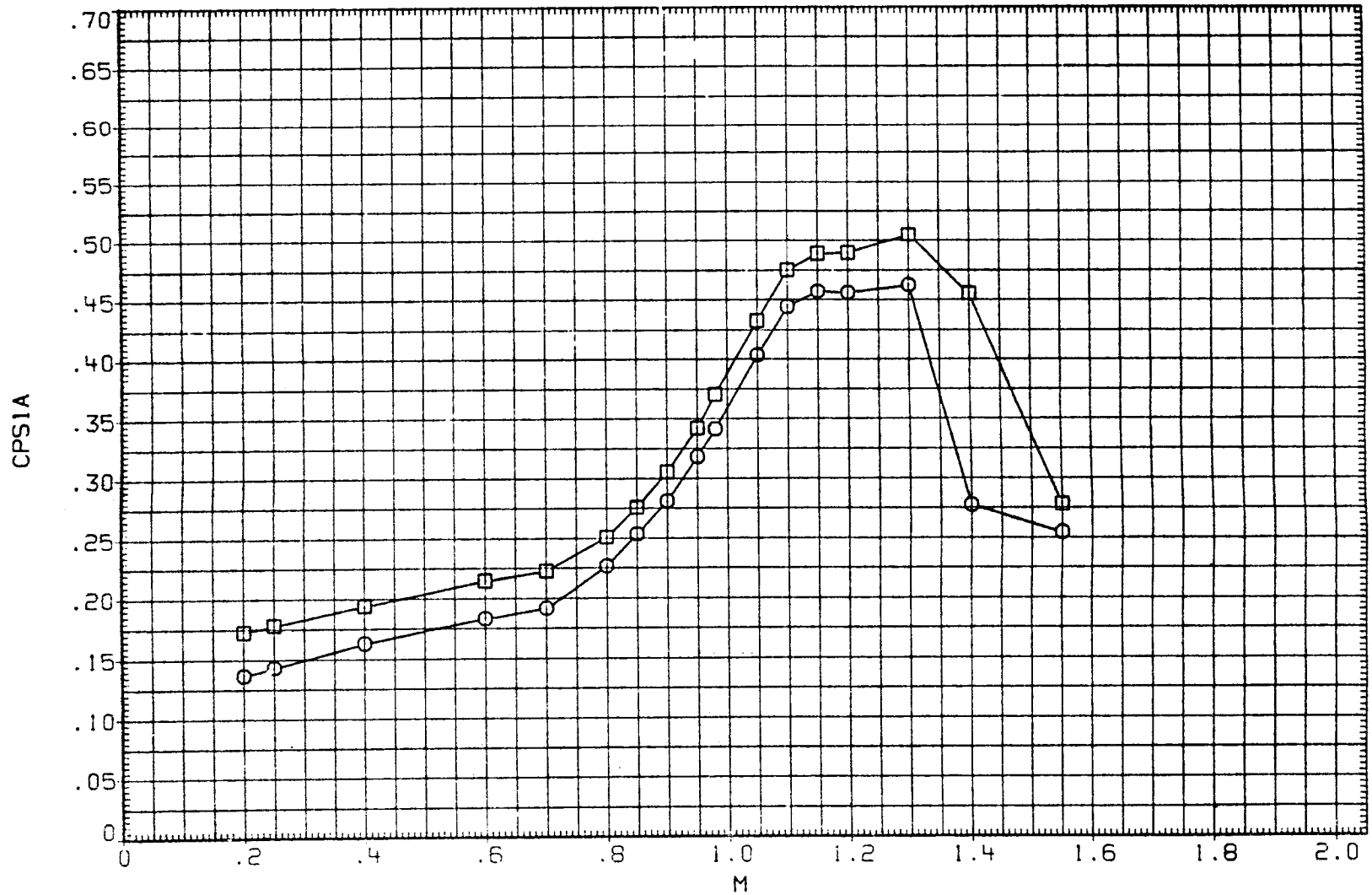


FIG. 7 0A232 SIDE PROBE CPS1A VERSUS MACH NUMBER AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE

(B)ALPHA = 4.00 DATE 09 AUG 78 PAGE 42

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRB14	○	0A232	AEDC 16T TF431	LA .2A	RFN.1S	.000	.000
AVRB15	□	0A232	AEDC 16T TF431	LA .2A	RFN.1S	2.000	.000

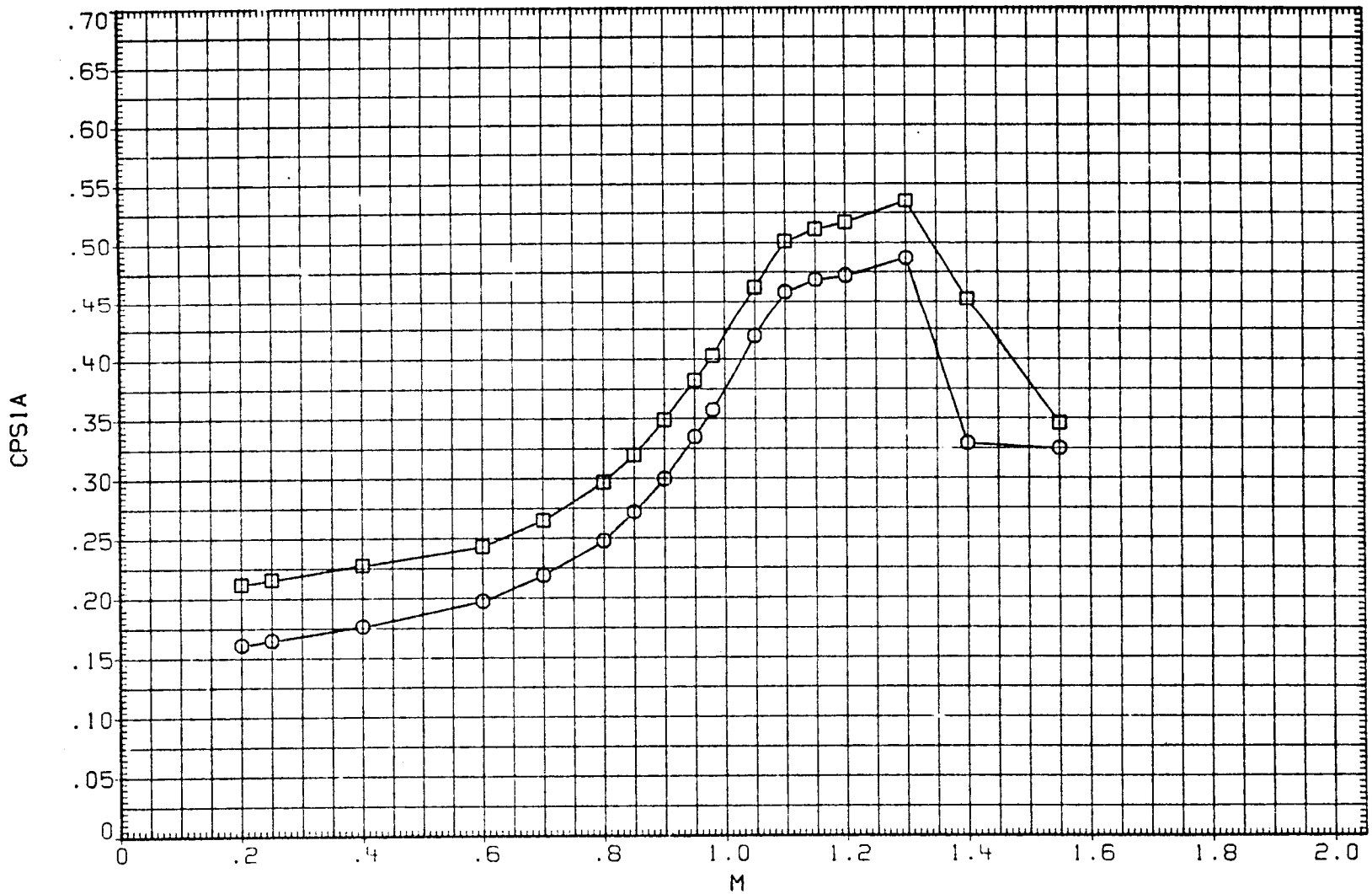


FIG. 7 0A232 SIDE PROBE CPS1A VERSUS MACH NUMBER AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE

(C)ALPHA = 8.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVR814	○	0A232	AEDC 16T TF431	LA .2A	RFN.1S	.000	.000
AVR815	□	0A232	AEDC 16T TF431	LA .2A	RFN.1S	2.000	.000

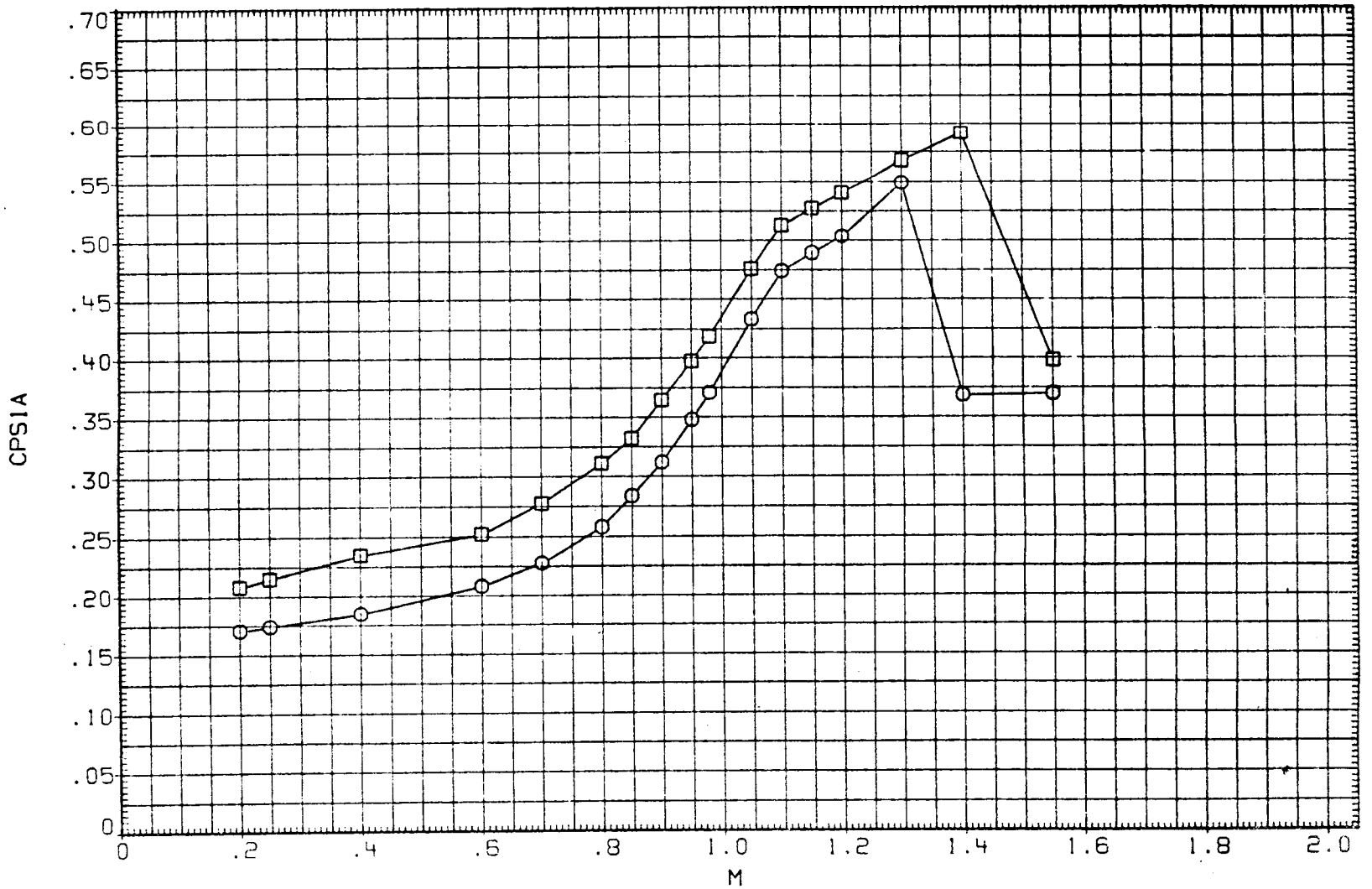


FIG. 7 0A232 SIDE PROBE CPS1A VERSUS MACH NUMBER AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE

(D)ALPHA = 12.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRB14	○	0A232	AEDC 16T TF431	LA .2A	RFN.1S	.000	.000
AVRB15	□	0A232	AEDC 16T TF431	LA .2A	RFN.1S	2.000	.000

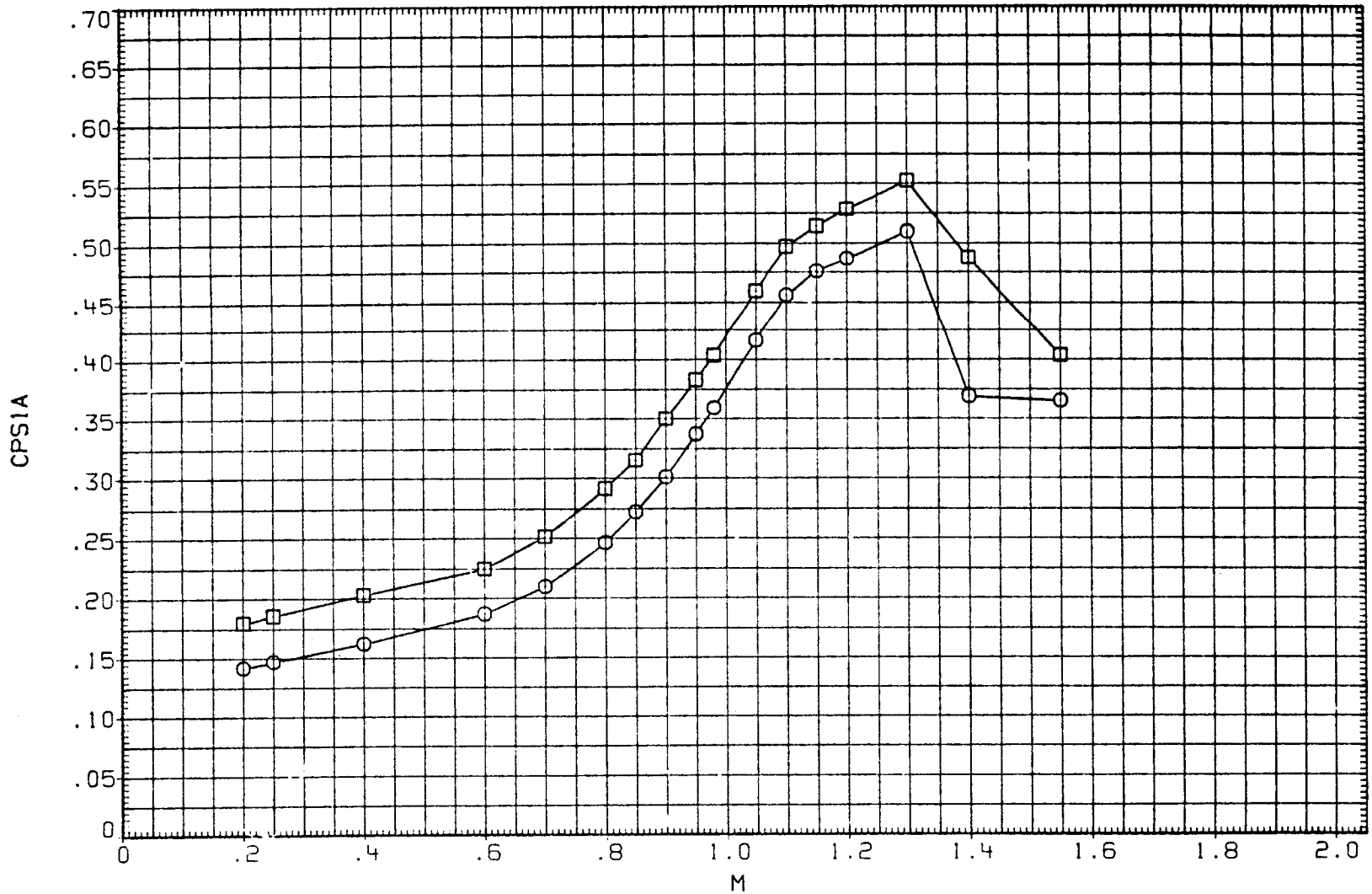


FIG. 7 0A232 SIDE PROBE CPS1A VERSUS MACH NUMBER AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON RIGHT SIDE

(E) ALPHA = 16.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB14	○	0A232 AEDC 1ST TF431 LA .2A RFN.1S	.000	.000
AVRB15	□	0A232 AEDC 16T TF431 LA .2A RFN.1S	2.000	.000

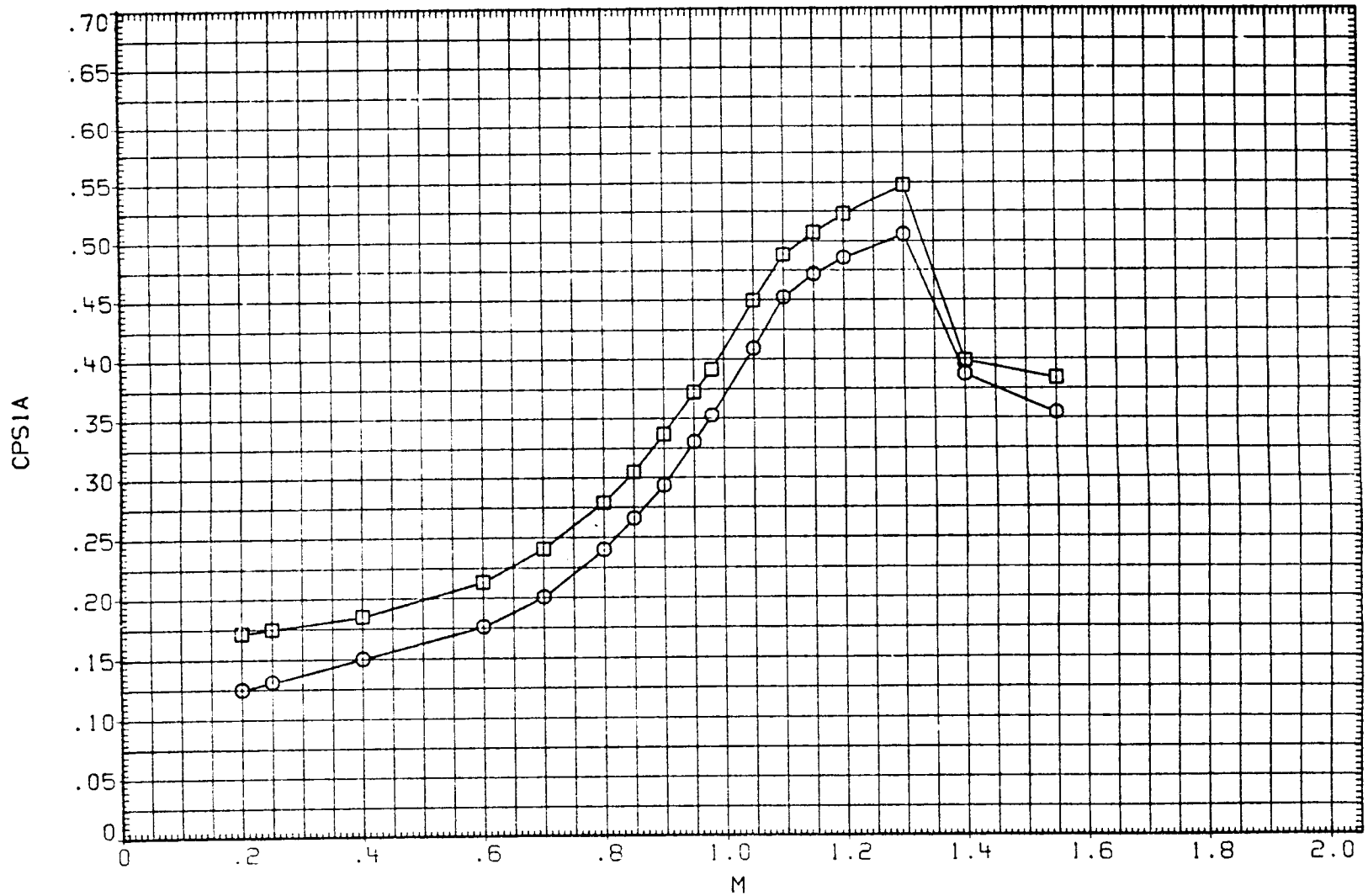


FIG. 7 0A232 SIDE PROBE CPS1A VERSUS MACH NUMBER AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE

(F)ALPHA = 18.00 DATE 09 AUG 78

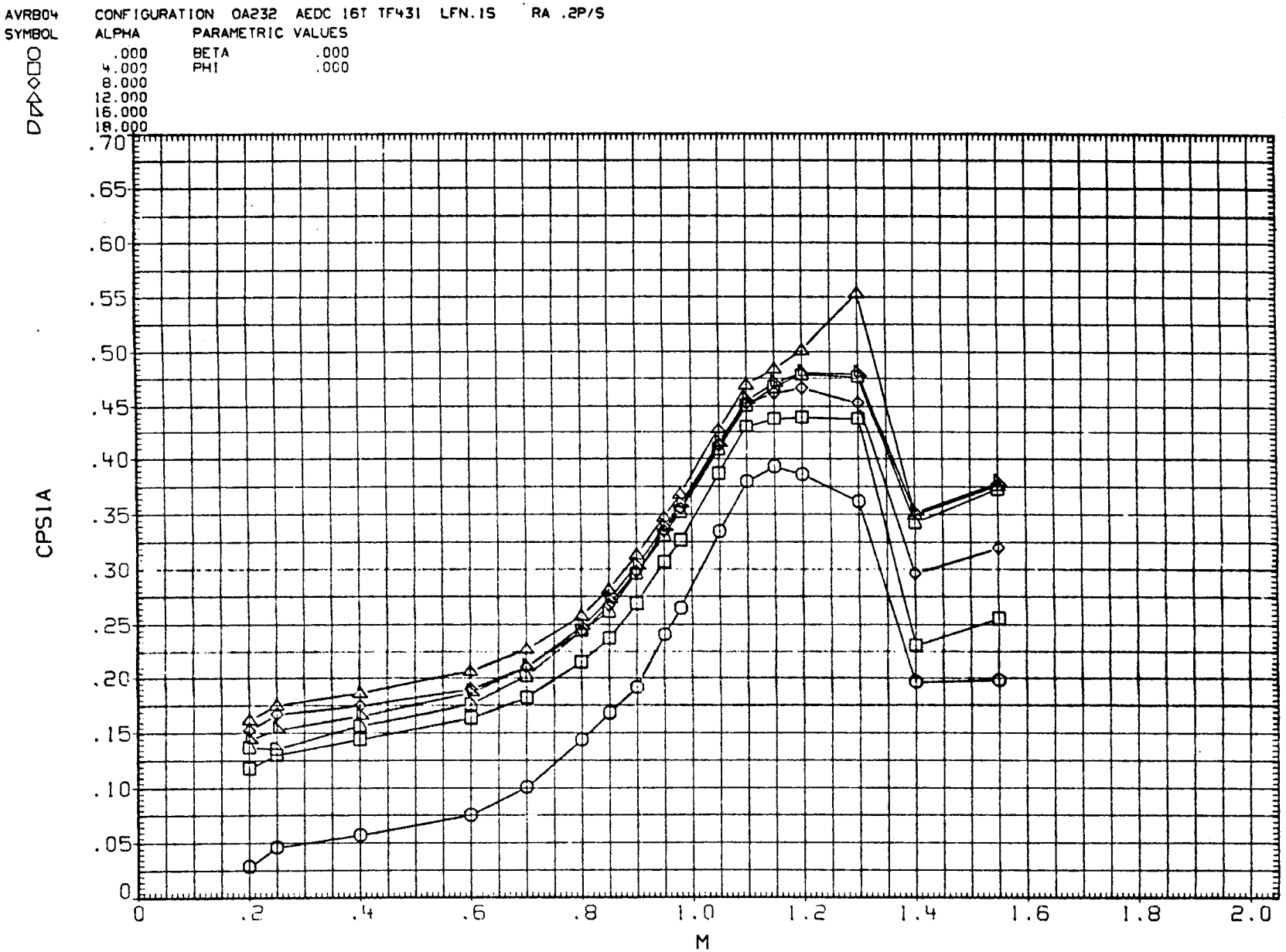


FIG. 8 0A232 SIDE PROBE CPS1A VERSUS MACH NUMBER AT VARIOUS ALPHAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON LEFT SIDE

DATE 09 AUG 78

AVRB06 CONFIGURATION OA232 AEDC 16T TF431 LFN.1S RA .2P/S

SYMBOL	ALPHA	PARAMETRIC VALUES	
○	.000	BETA	2.000
△	4.000	PHI	.000
◇	8.000		
▷	12.000		
□	16.000		
▽	18.000		

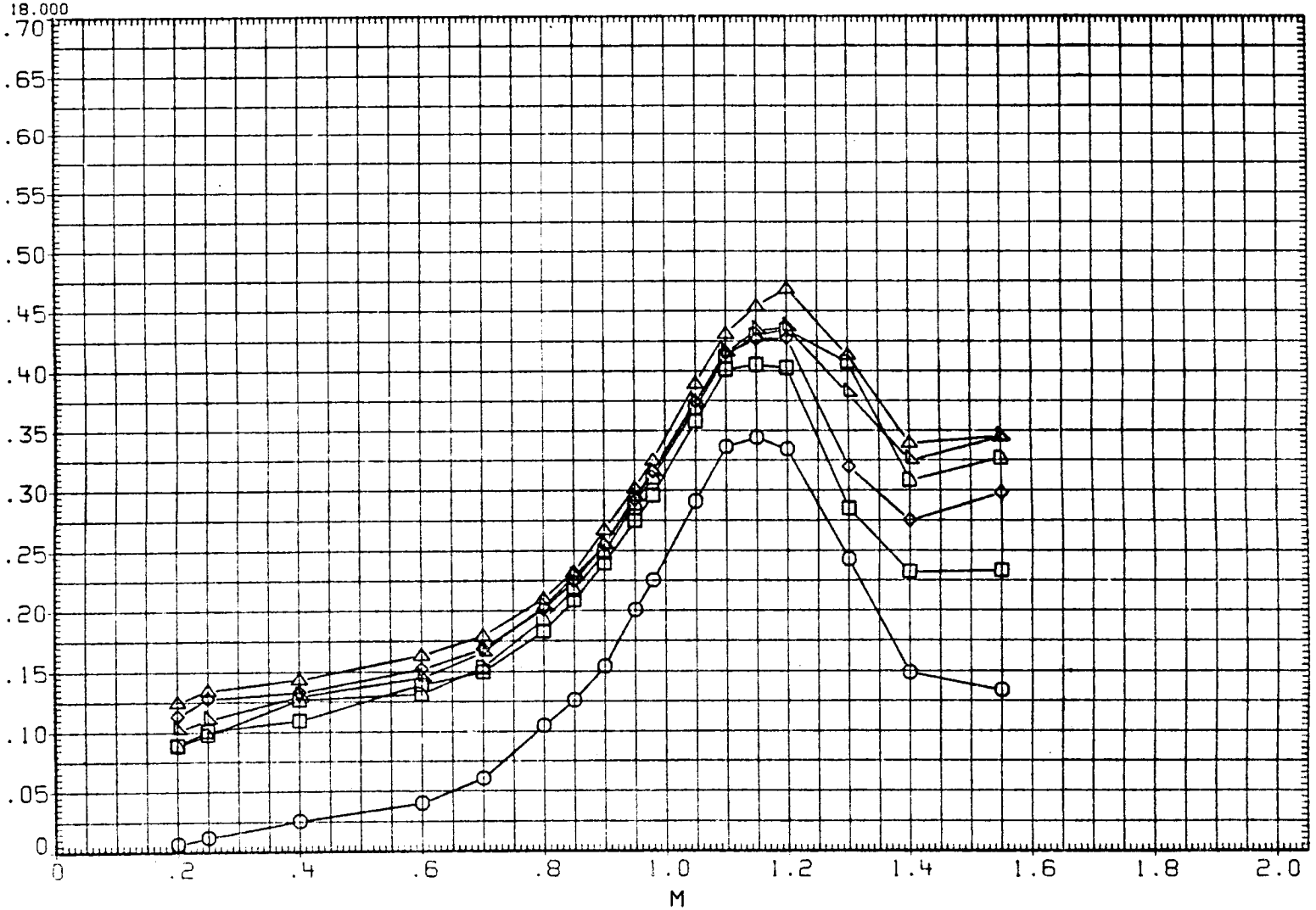


FIG. 8 OA232 SIDE PROBE CPS1A VERSUS MACH NUMBER AT VARIOUS ALPHAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON LEFT SIDE

DATE 09 AUG 78

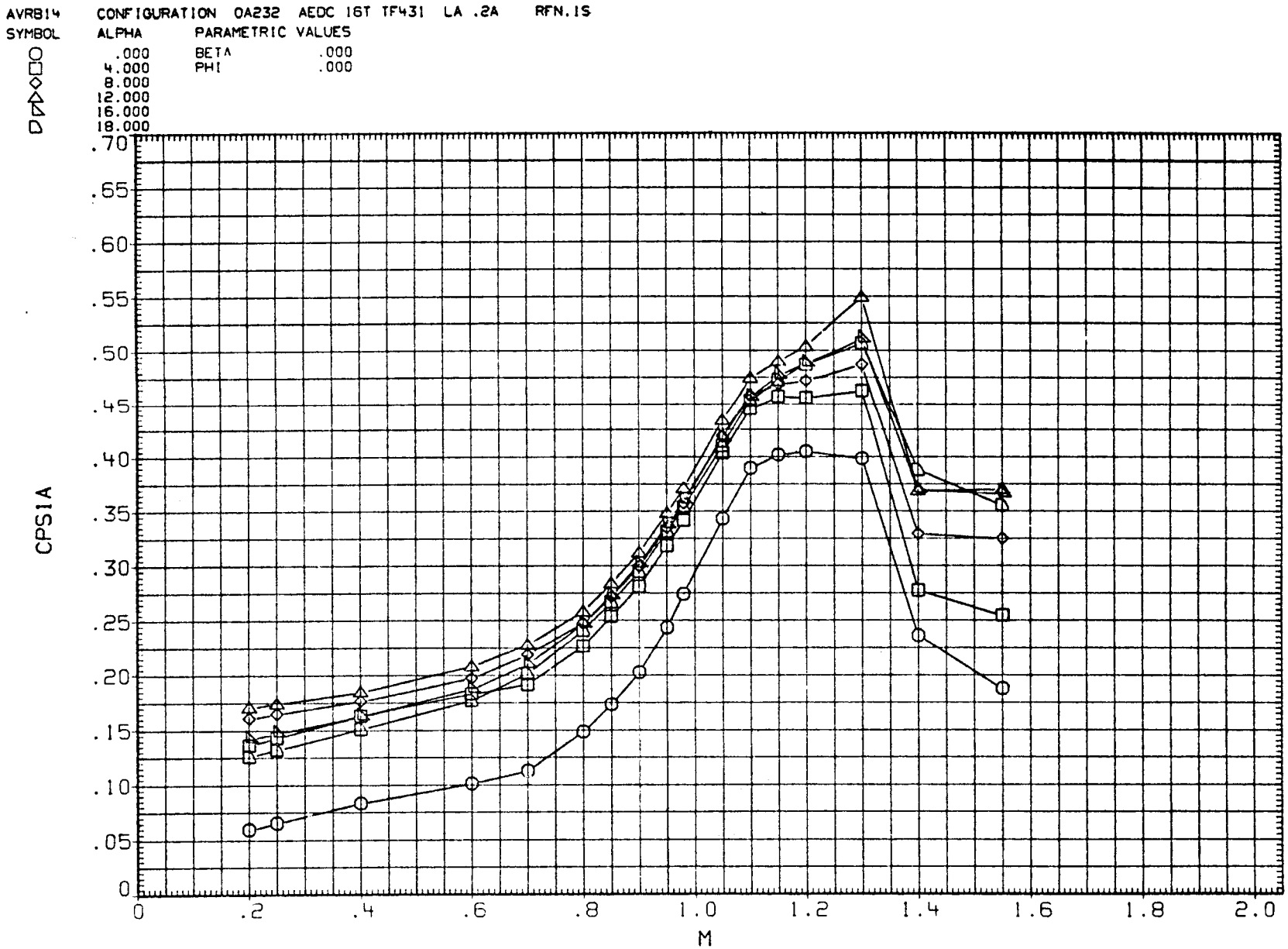


FIG. 9 0A232 SIDE PROBE CPS1A VERSUS MACH NUMBER AT VARIOUS ALPHAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON RIGHT SIDE

DATE 09 AUG 78

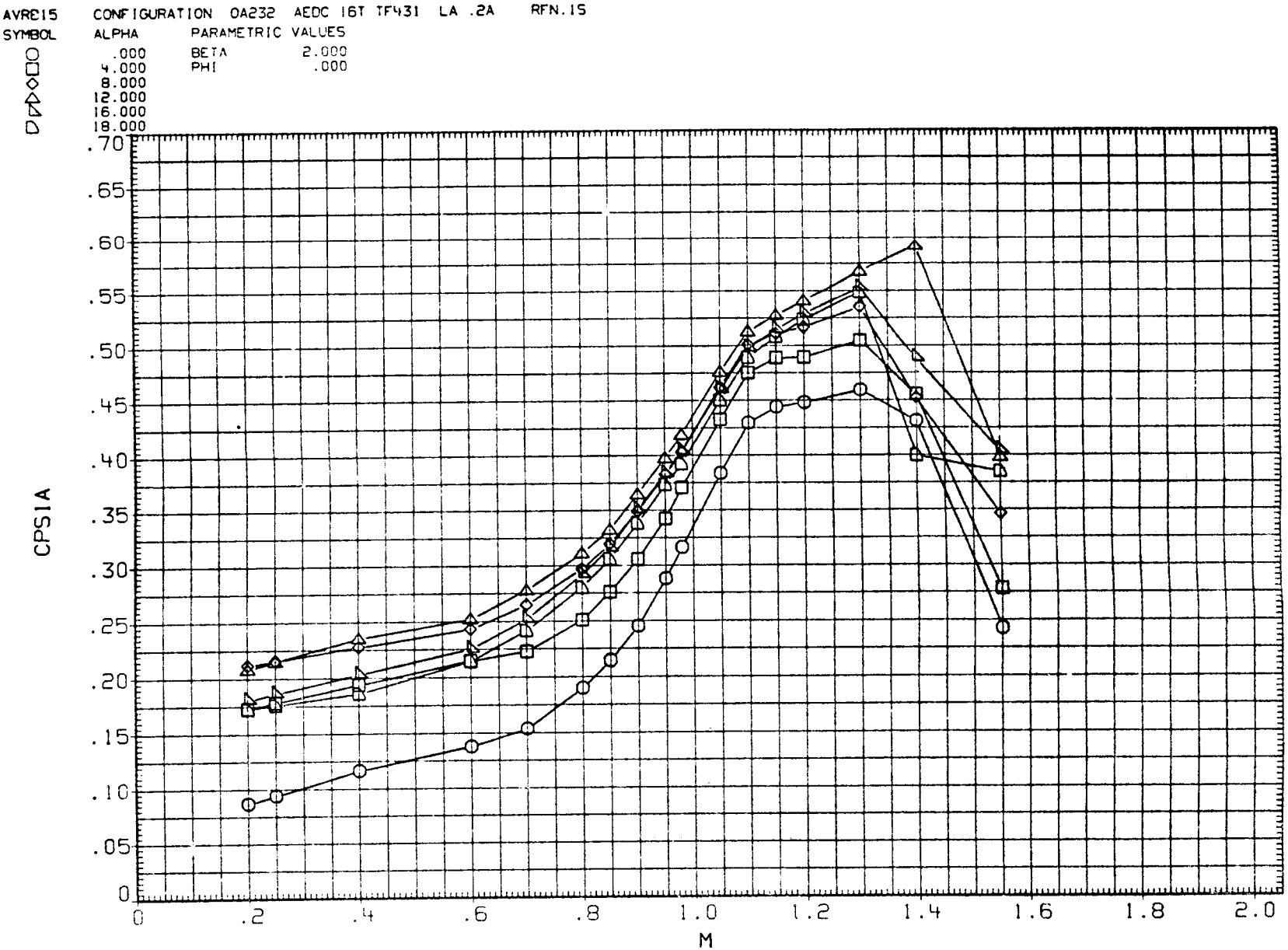


FIG. 9 0A232 SIDE PROBE CPS1A VERSUS MACH NUMBER AT VARIOUS ALPHAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON RIGHT SIDE
DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVR104	○	0A232 AEDC 16T TF431 LFN.1S RA .2P/S	.000	.000
AVR108	□	0A232 AEDC 16T TF431 LFN.1S RA .2P/S	.000	.000
AVR110	◇	0A232 AEDC 16T TF431 LFN.1S RA .2P/S	2.000	.000

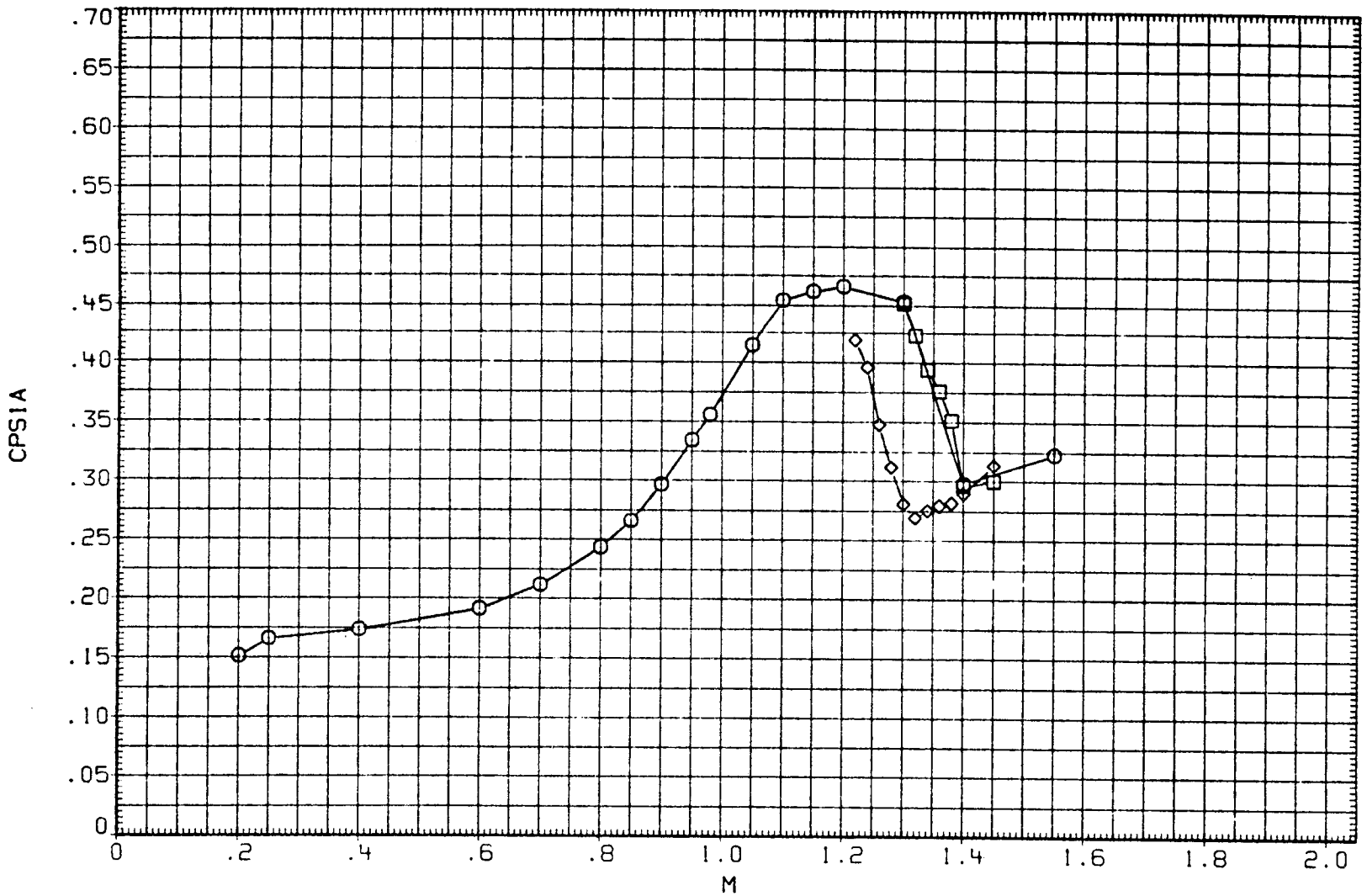


FIG. 10 0A232 SIDE PROBE CPS1A VERSUS MACH NUMBER FINE CUT
DATA INTERPOLATED WITH MACH, ALPHA, PROBE ON LEFT SIDE

(A) ALPHA = 8.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVR104	○	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	.000	.000
AVR108	□	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	.000	.000
AVR110	◇	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	2.000	.000

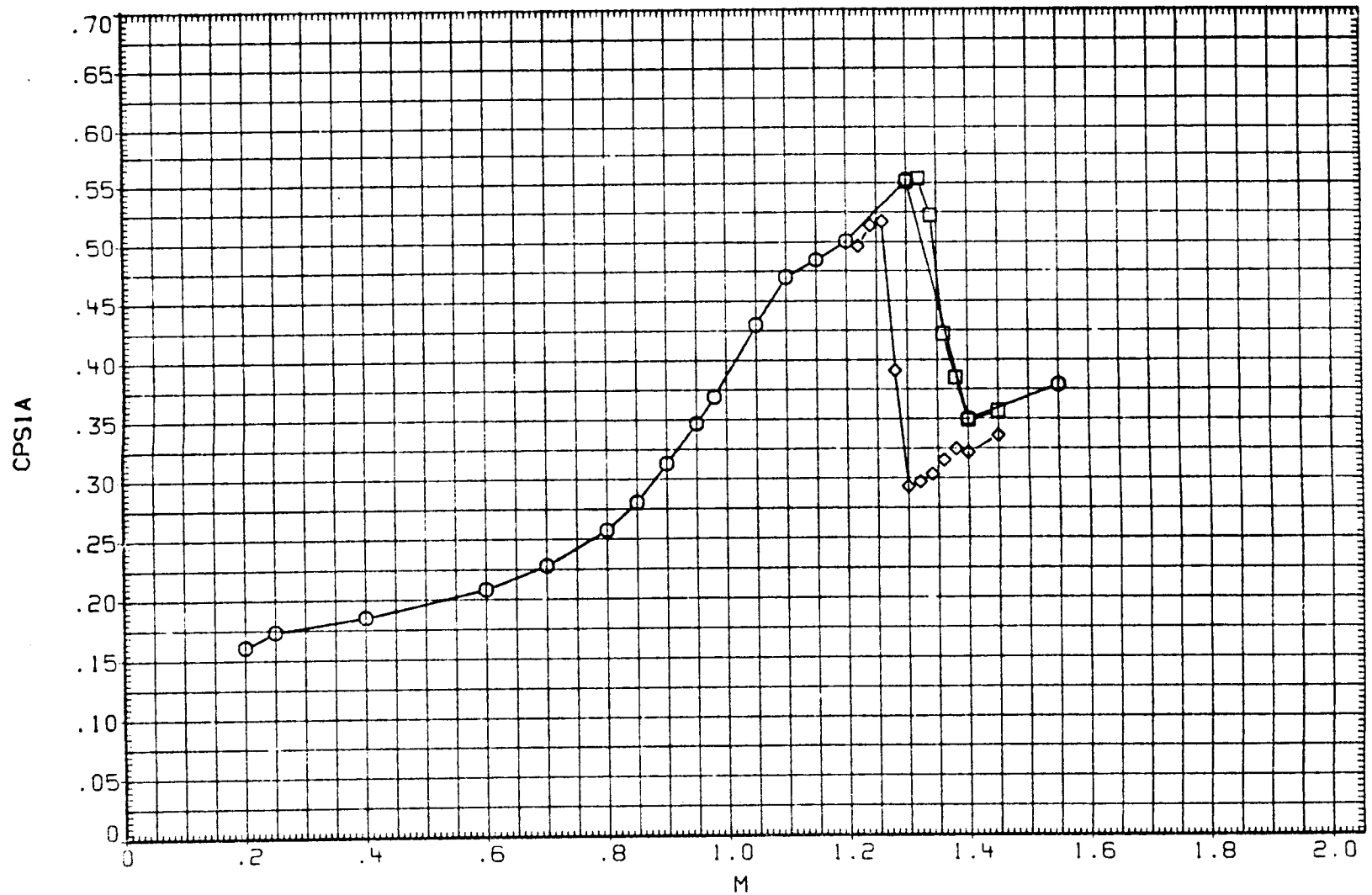


FIG. 10 0A232 SIDE PROBE CPS1A VERSUS MACH NUMBER FINE CUT
DATA INTERPOLATED WITH MACH, ALPHA, PROBE ON LEFT SIDE

(B) ALPHA = 12.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVR104	○	OA232	AEDC 16T TF431	LFN.1S	RA .2P/S	.000	.000
AVR108	□	OA232	AEDC 16T TF431	LFN.1S	RA .2P/S	.000	.000
AVR110	◇	OA232	AEDC 16T TF431	LFN.1S	RA .2P/S	2.000	.000

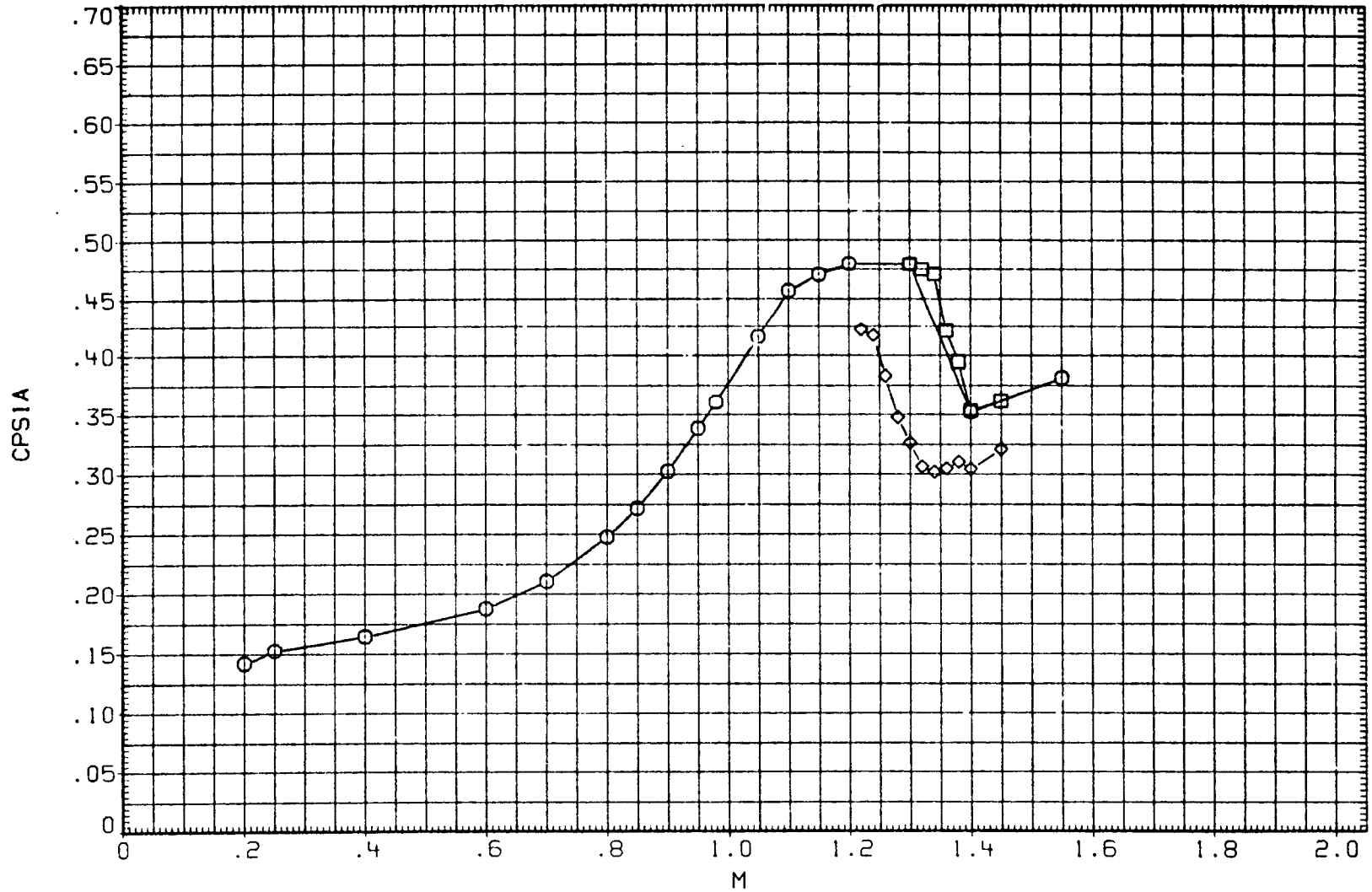


FIG. 10 OA232 SIDE PROBE CPSIA VERSUS MACH NUMBER FINE CUT
DATA INTERPOLATED WITH MACH, ALPHA, PROBE ON LEFT SIDE

(C) ALPHA = 16.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVR104	○	0A232	AEDC	16T	TF431	LFN.1S RA .2P/S	.000	.000
AVR108	□	0A232	AEDC	16T	TF431	LFN.1S RA .2P/S	.000	.000
AVR110	◇	0A232	AEDC	16T	TF431	LFN.1S RA .2P/S	2.000	.000

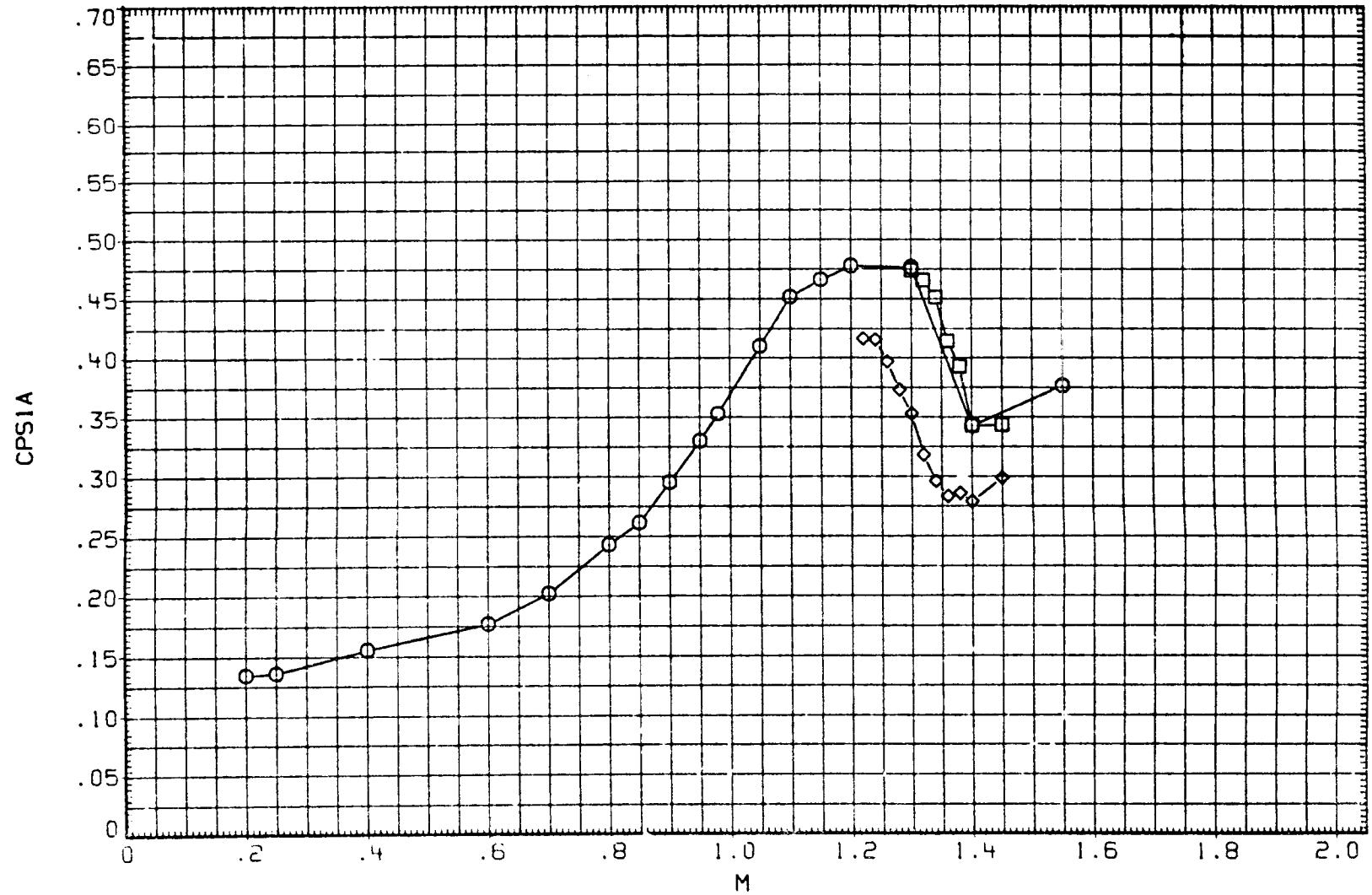


FIG. 10 0A232 SIDE PROBE CPS1A VERSUS MACH NUMBER FINE CUT
DATA INTERPOLATED WITH MACH, ALPHA, PROBE ON LEFT SIDE

(D) ALPHA = 18.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRJ14	○	0A232	AEDC 16T TF431	LA .2A	RFN.1S	.000	.000
AVRI16	□	0A232	AEDC 16T TF431	LA .2A	RFN.1S	.000	.000

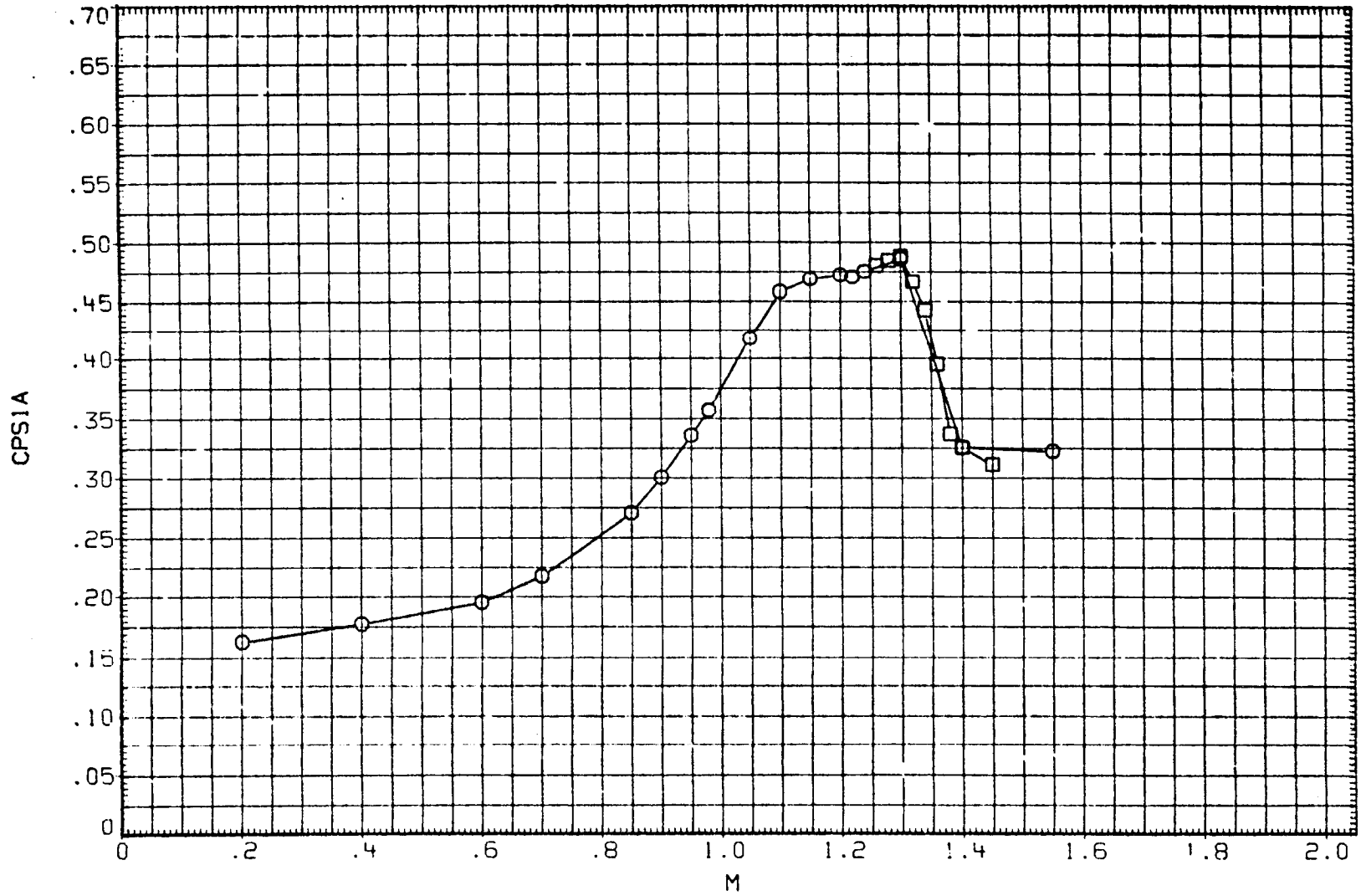


FIG. 11 0A232 SIDE PROBE CPS1A VERSUS MACH NUMBER FINE CUT
DATA INTERPOLATED WITH MACH, ALPHA, PROBE ON RIGHT SIDE

(A) ALPHA = 8.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVRJ14	○	0A232	AEDC	16T	TF431	LA .2A RFN.1S	.000	.000
AVRI16	□	0A232	AEDC	16T	TF431	LA .2A RFN.1S	.000	.000

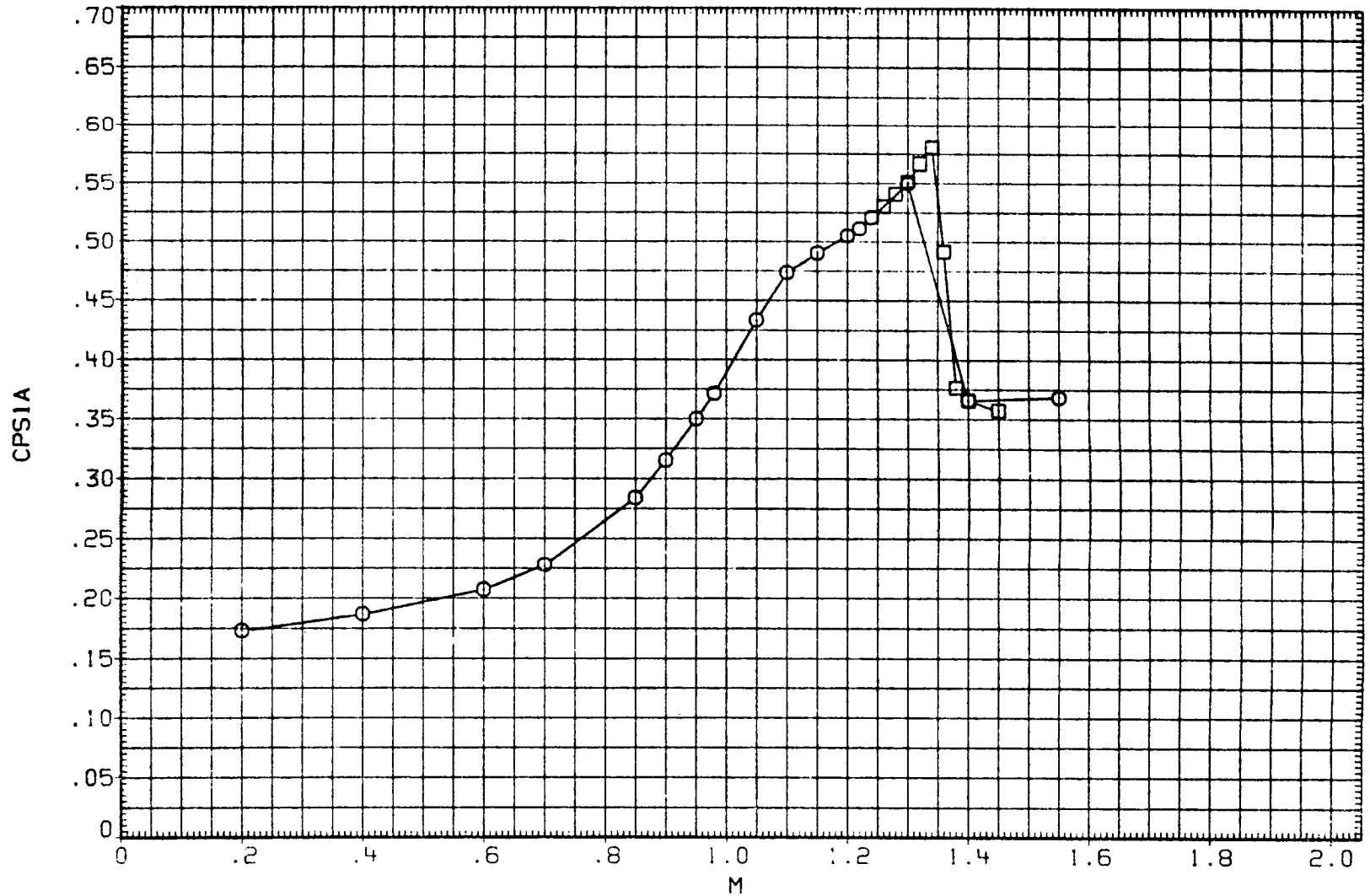


FIG. 11 0A232 SIDE PROBE CPS1A VERSUS MACH NUMBER FINE CUT
DATA INTERPOLATED WITH MACH, ALPHA, PROBE ON RIGHT SIDE

(B) ALPHA = 12.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRJ14	○	0A232	AEDC 16T TF431	LA .2A	RFN.1S	.000	.000
AVR116	□	0A232	AEDC 16T TF431	LA .2A	RFN.1S	.000	.000

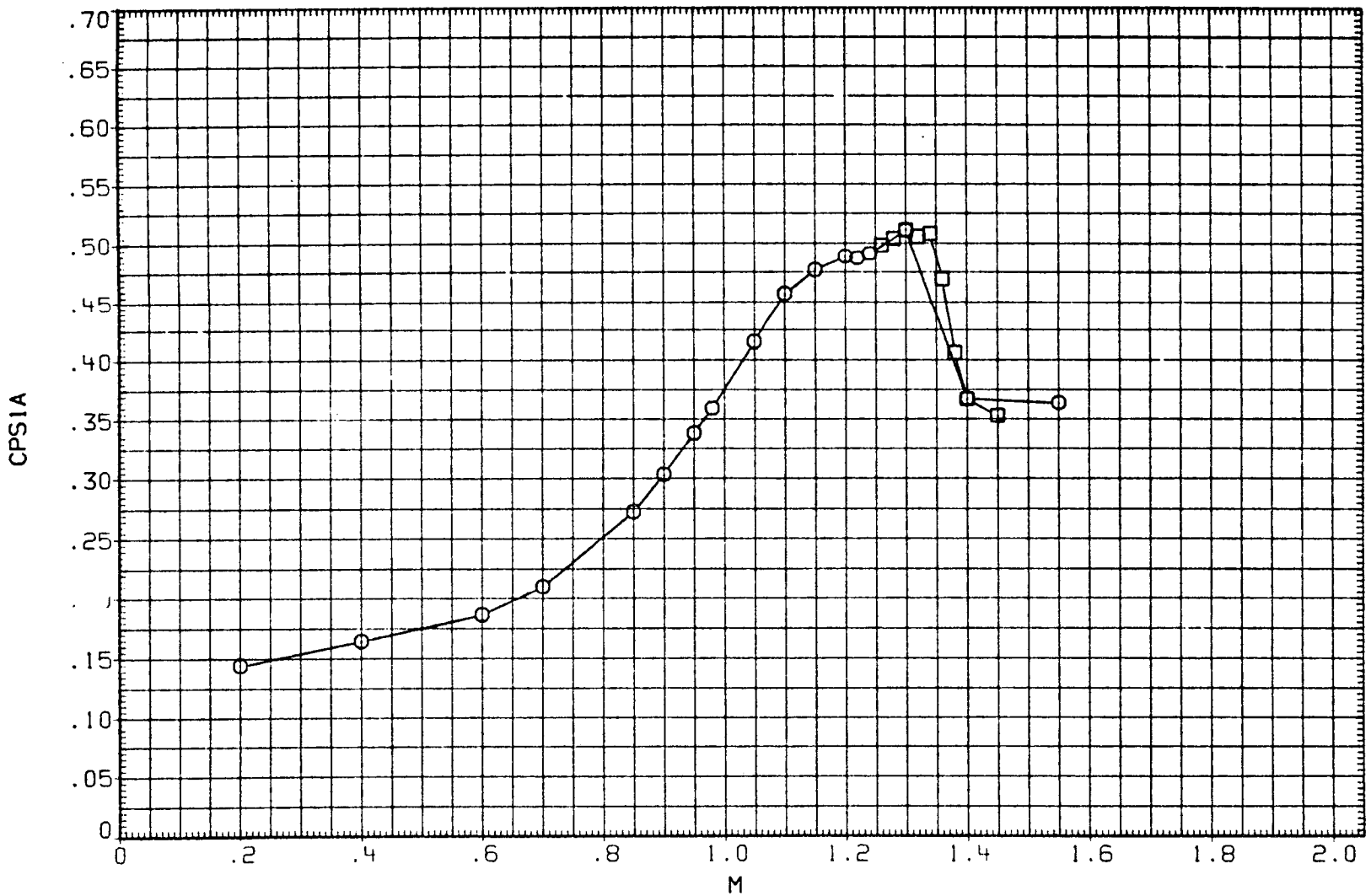


FIG. 11 0A232 SIDE PROBE CPSIA VERSUS MACH NUMBER FINE CUT
DATA INTERPOLATED WITH MACH, ALPHA, PROBE ON RIGHT SIDE

(C) ALPHA = 16.00 DATE 09 AUG 78 PAGE 7

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRJ14	○	0A232	AEDC 16T TF431	LA .2A	RFN.1S	.000	.000
AVRI16	□	0A232	AEDC 16T TF431	LA .2A	RFN.1S	.000	.000

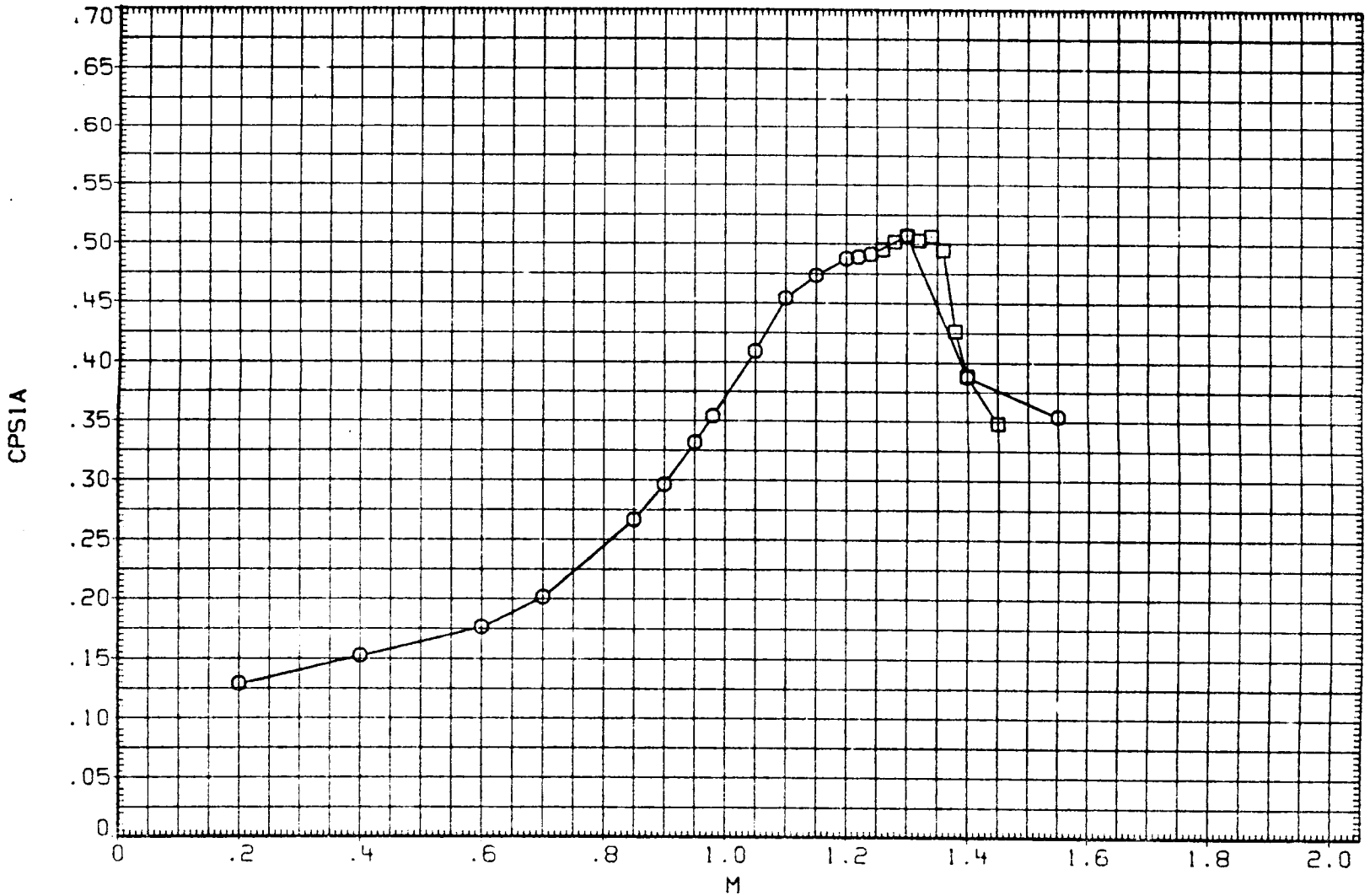


FIG. 11 0A232 SIDE PROBE CPS1A VERSUS MACH NUMBER FINE CUT
DATA INTERPOLATED WITH MACH, ALPHA, PROBE ON RIGHT SIDE

(D) ALPHA = 18.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVR105	○	DATA NOT AVAILABLE					.000	.000
AVR107	□	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	INV	.000	180.000
AVRJ09	◇	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S		.000	.000

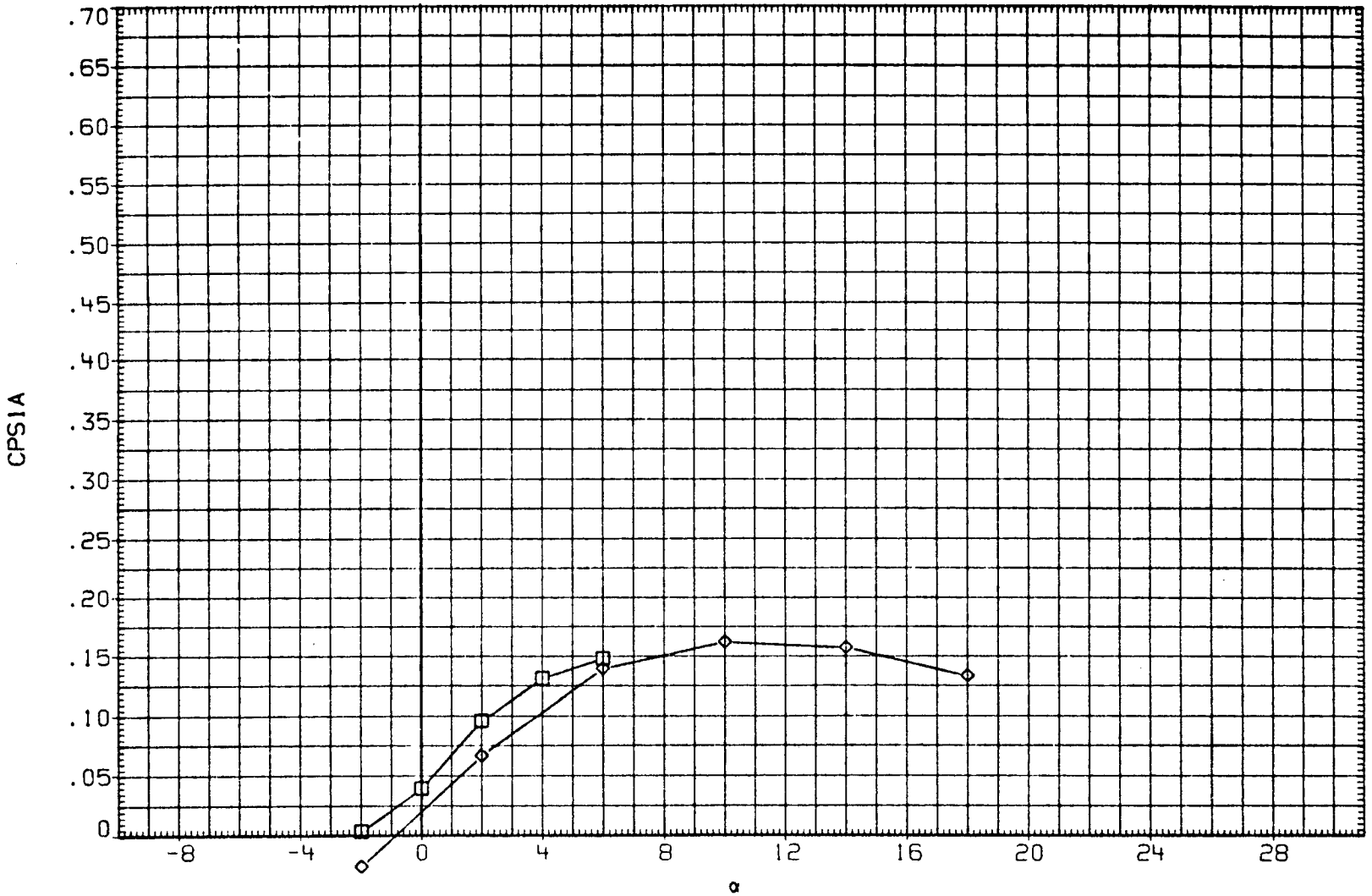


FIG. 12 0A232 SIDE PROBE CPS1A VERSUS ALPHA REPEATABILITY, INVERTED DATA INTERPOLATED WITH MACH, ALPHA, PROBE ON LEFT SIDE

(A) MACH = .20 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRI05	○	DATA NOT AVAILABLE				.000	.000
AVRI07	□	0A232 AEDC 16T TF431	LFN.1S	RA .2P/S	INV	.000	180.000
AVRJ09	◇	DATA NOT AVAILABLE				.000	.000

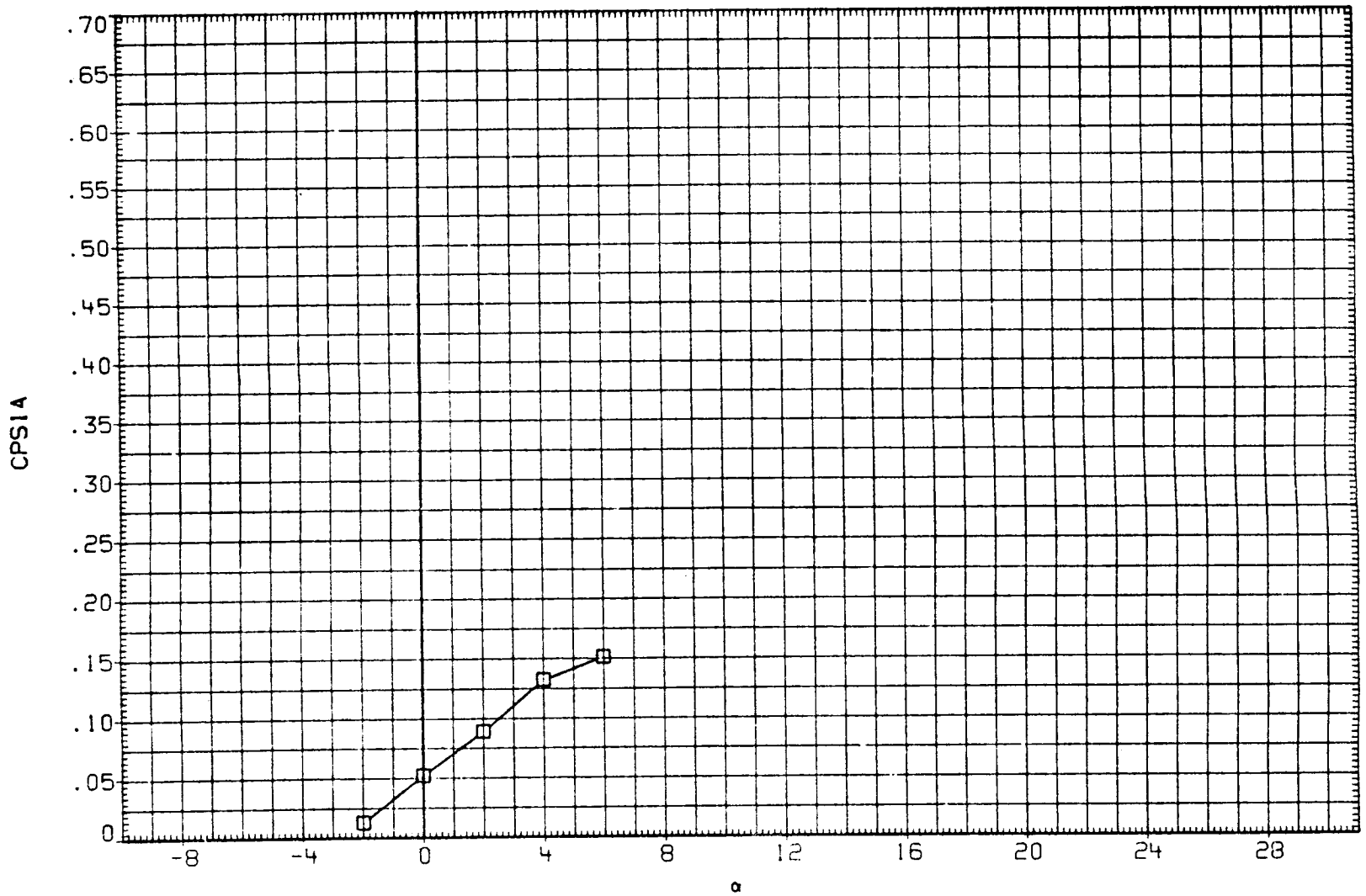


FIG. 12 0A232 SIDE PROBE CPS1A VERSUS ALPHA REPEATABILITY, INVERTED
DATA INTERPOLATED WITH MACH, ALPHA, PROBE ON LEFT SIDE

(B)MACH = .25 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVR105	○	DATA NOT AVAILABLE					.000	.000
AVR107	□	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	INV	.000	180.000
AVRJ09	◇	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S		.000	.000

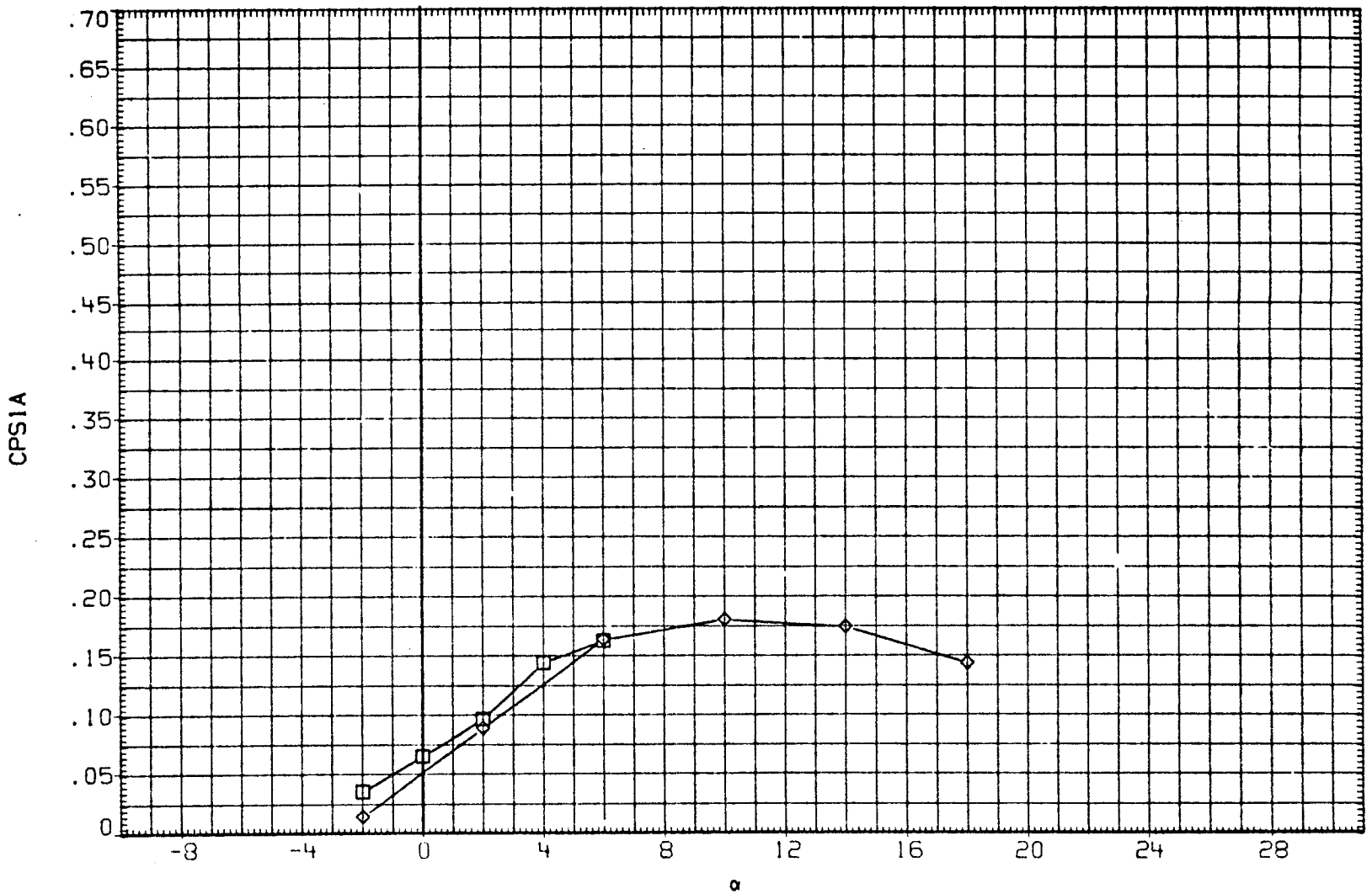


FIG. 12 0A232 SIDE PROBE CPS1A VERSUS ALPHA REPEATABILITY, INVERTED
DATA INTERPOLATED WITH MACH, ALPHA, PROBE ON LEFT SIDE

(C)MACH = .40 DATE 09 AUG 78 PAGE 11

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVRI05	○	DATA NOT AVAILABLE					.000	.000
AVRI07	□	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	INV	.000	180.000
AVRJ09	◇	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S		.000	.000

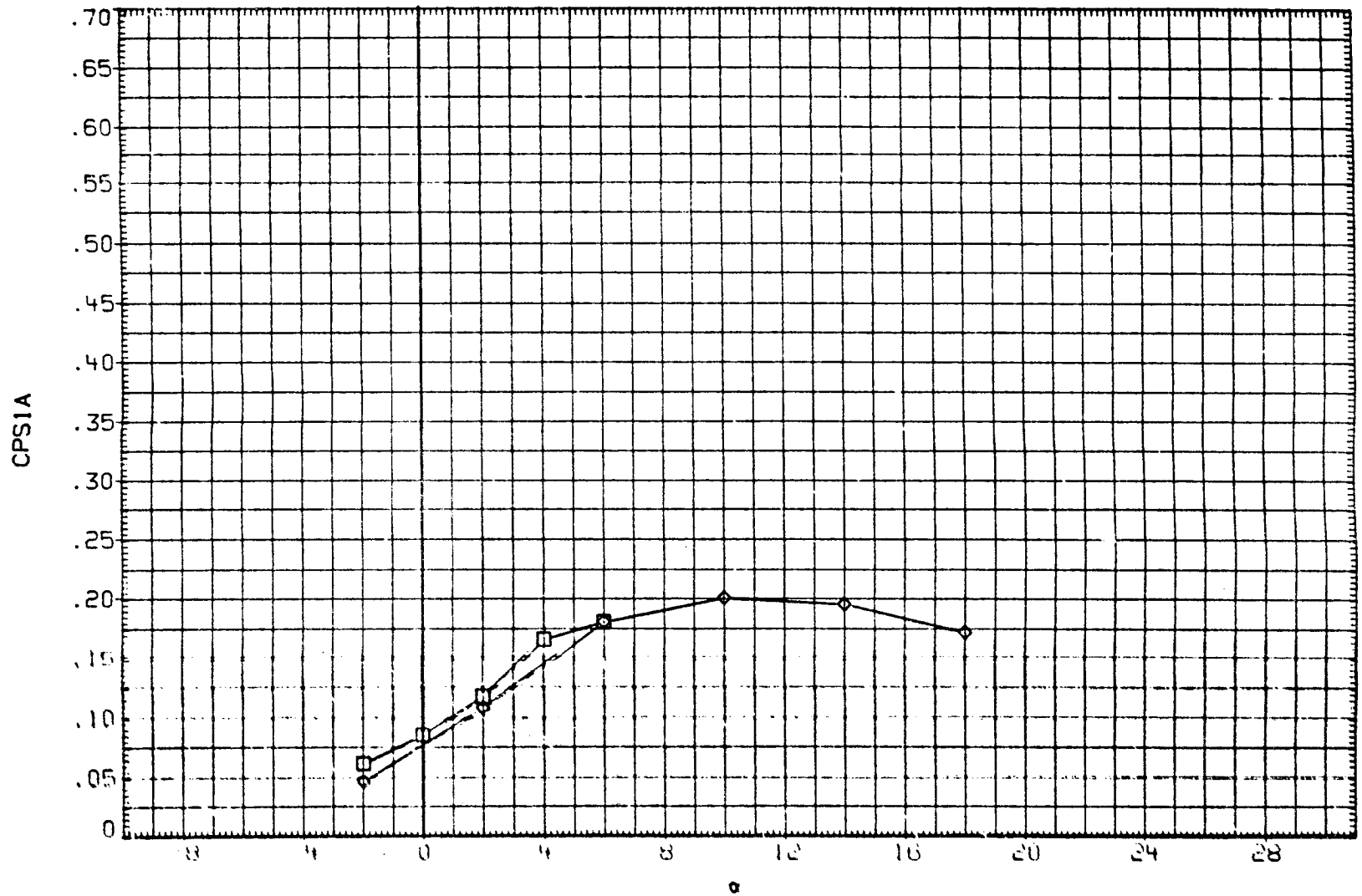


FIG. 12 0A232 SIDE PROBE CPS1A VERSUS ALPHA REPEATABILITY, INVERTED
DATA INTERPOLATED WITH MACH, ALPHA, PROBE ON LEFT SIDE

(D)MACH = .60 DATE 09 AUG 78 PAGE 12

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRI05	○	DATA NOT AVAILABLE	.000	.000
AVRI07	□	DATA NOT AVAILABLE	.000	180.000
AVRJ09	◇	OA232 AEDC 16T TF431 LFN.1S RA .2P/S	.000	.000

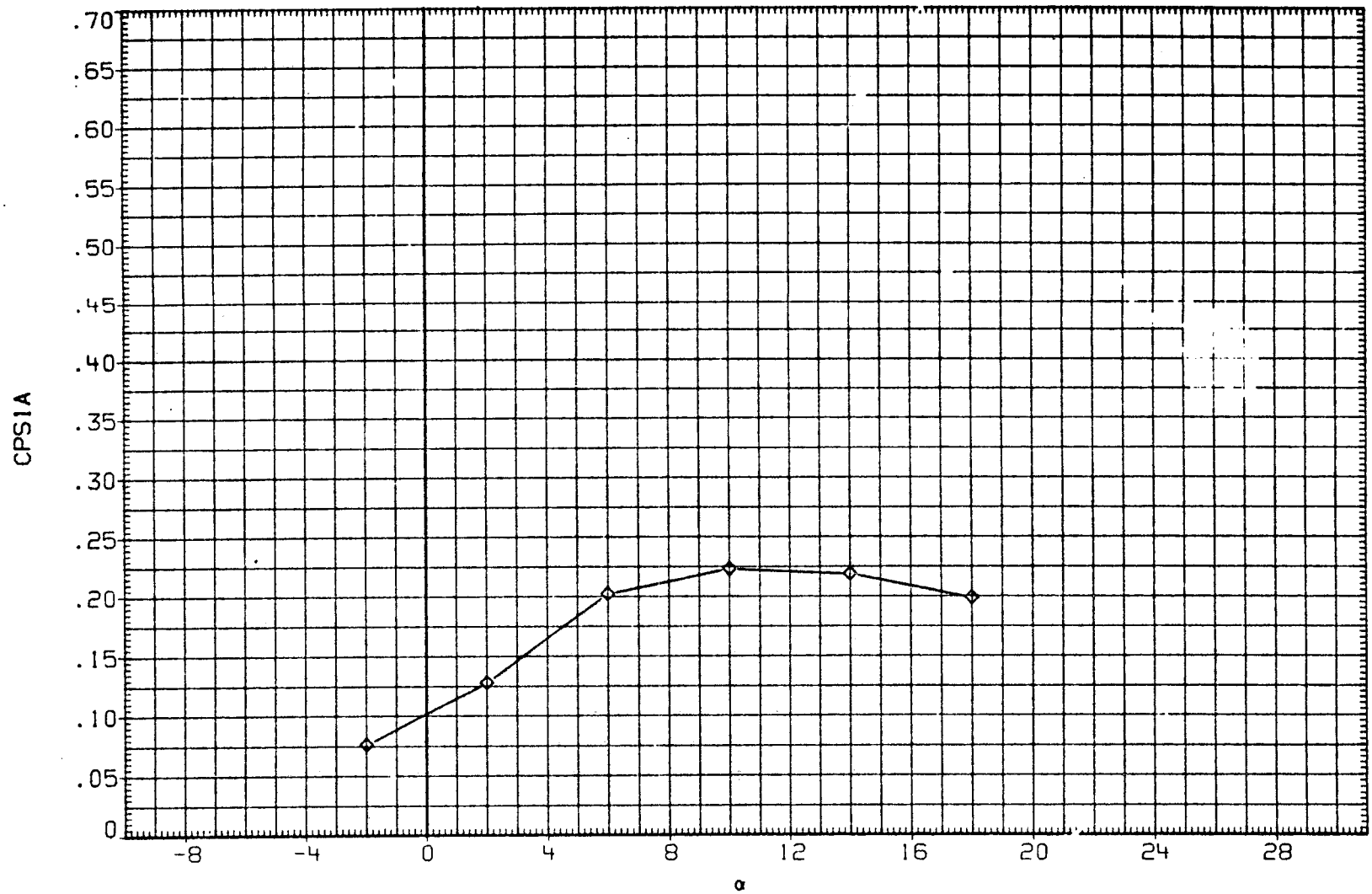


FIG. 12 OA232 SIDE PROBE CPS1A VERSUS ALPHA REPEATABILITY, INVERTED
DATA INTERPOLATED WITH MACH,ALPHA, PROBE ON LEFT SIDE

(E)MACH = .70 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVR105	○	DATA NOT AVAILABLE					.000	.000
AVR107	□	0A232 AEDC 16T TF431	LFN.1S	RA .2P/S	INV		.000	180.000
AVRJ09	◇	0A232 AEDC 16T TF431	LFN.1S	RA .2P/S			.000	.000

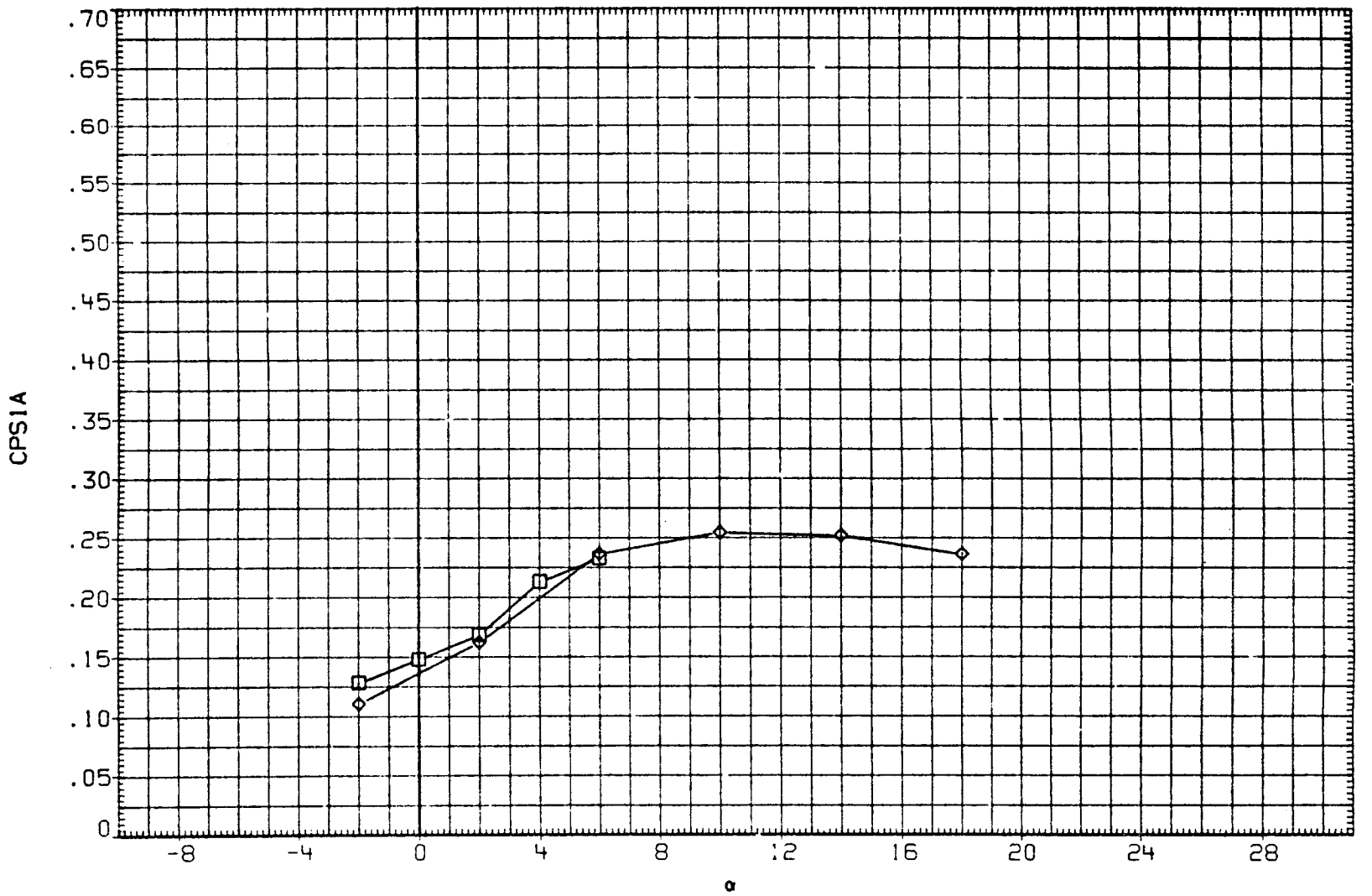


FIG. 12 0A232 SIDE PROBE CPS1A VERSUS ALPHA REPEATABILITY, INVERTED
DATA INTERPOLATED WITH MACH,ALPHA, PROBE ON LEFT SIDE

(F)MACH = .80 DATE 09 AUG 78 PAGE 14

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRI05	○	DATA NOT AVAILABLE				.000	.000
AVRI07	□	0A232 AEDC 16T TF431	LFN.1S	RA .2P/S	INV	.000	180.000
AVRJ09	◇	DATA NOT AVAILABLE				.000	.000

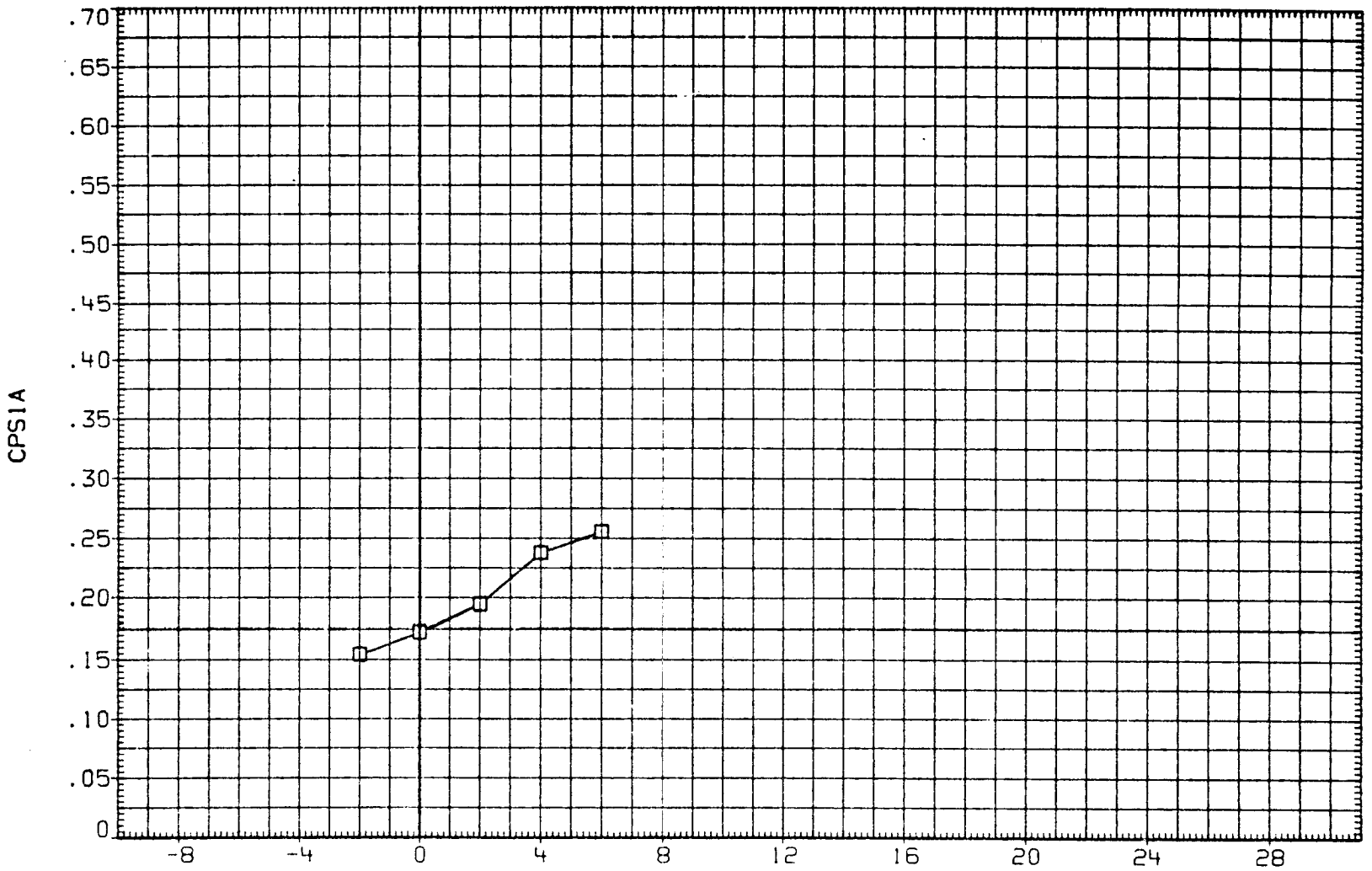


FIG. 12 0A232 SIDE PROBE CPS1A VERSUS ALPHA REPEATABILITY, INVERTED DATA INTERPOLATED WITH MACH, ALPHA, PROBE ON LEFT SIDE

(G)MACH = .85 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION		BETA	PHI
AVR105	○	0A232 AEDC 16T TF431 LFN.15	RA .2P/S LOW RN	.000	.000
AVR107	□	DATA NOT AVAILABLE		.000	180.000
AVRJ09	◇	0A232 AEDC 16T TF431 LFN.15	RA .2P/S	.000	.000

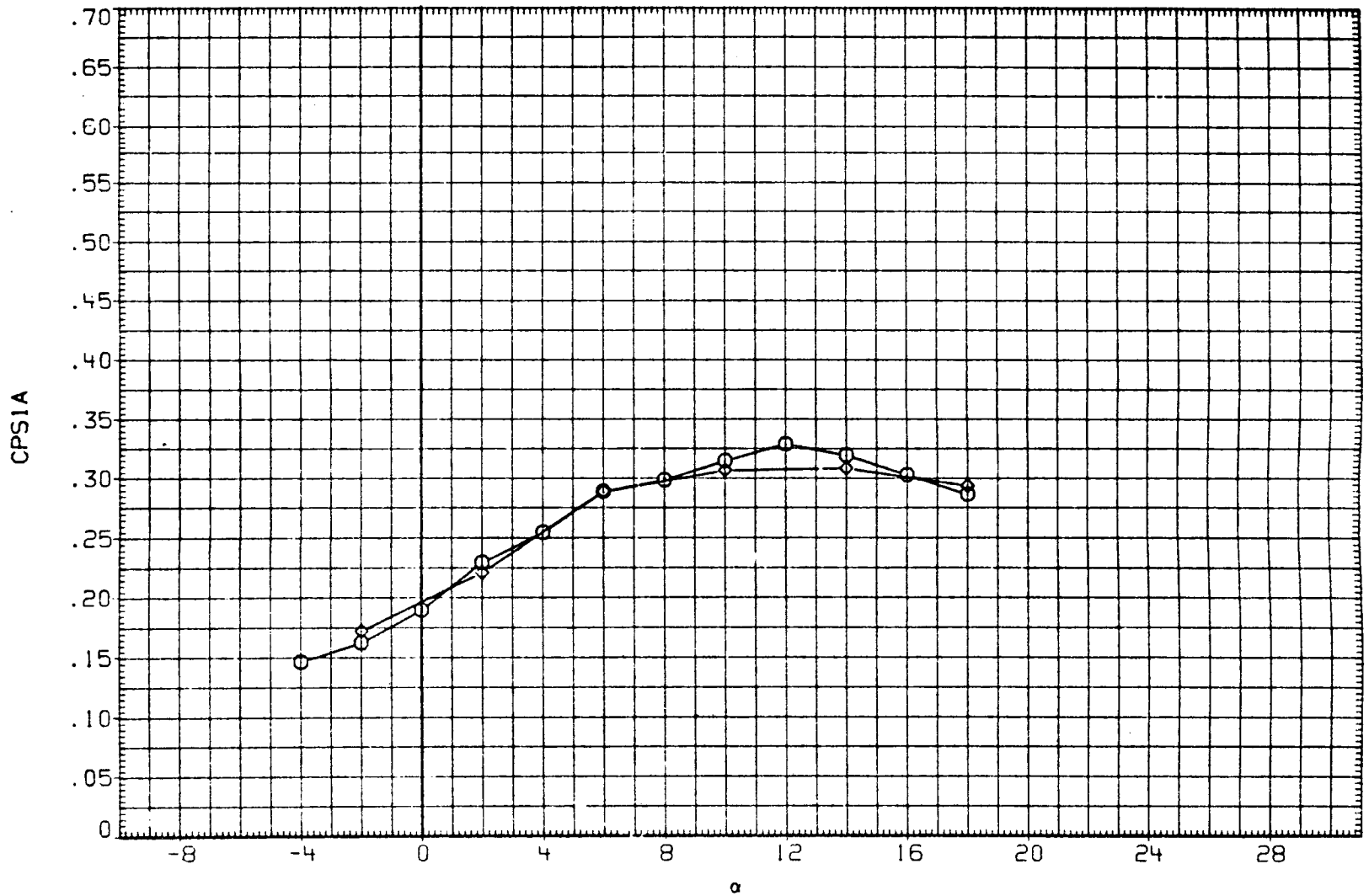


FIG. 12 0A232 SIDE PROBE CPS1A VERSUS ALPHA REPEATABILITY, INVERTED
DATA INTERPOLATED WITH MACH, ALPHA, PROBE ON LEFT SIDE

(H) MACH = .90 DATE 09 AUG 78 PAGE 16

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVRI05	○	DATA NOT AVAILABLE					.000	.000
AVRI07	□	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	INV	.000	180.000
AVRJ09	◇	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S		.000	.000

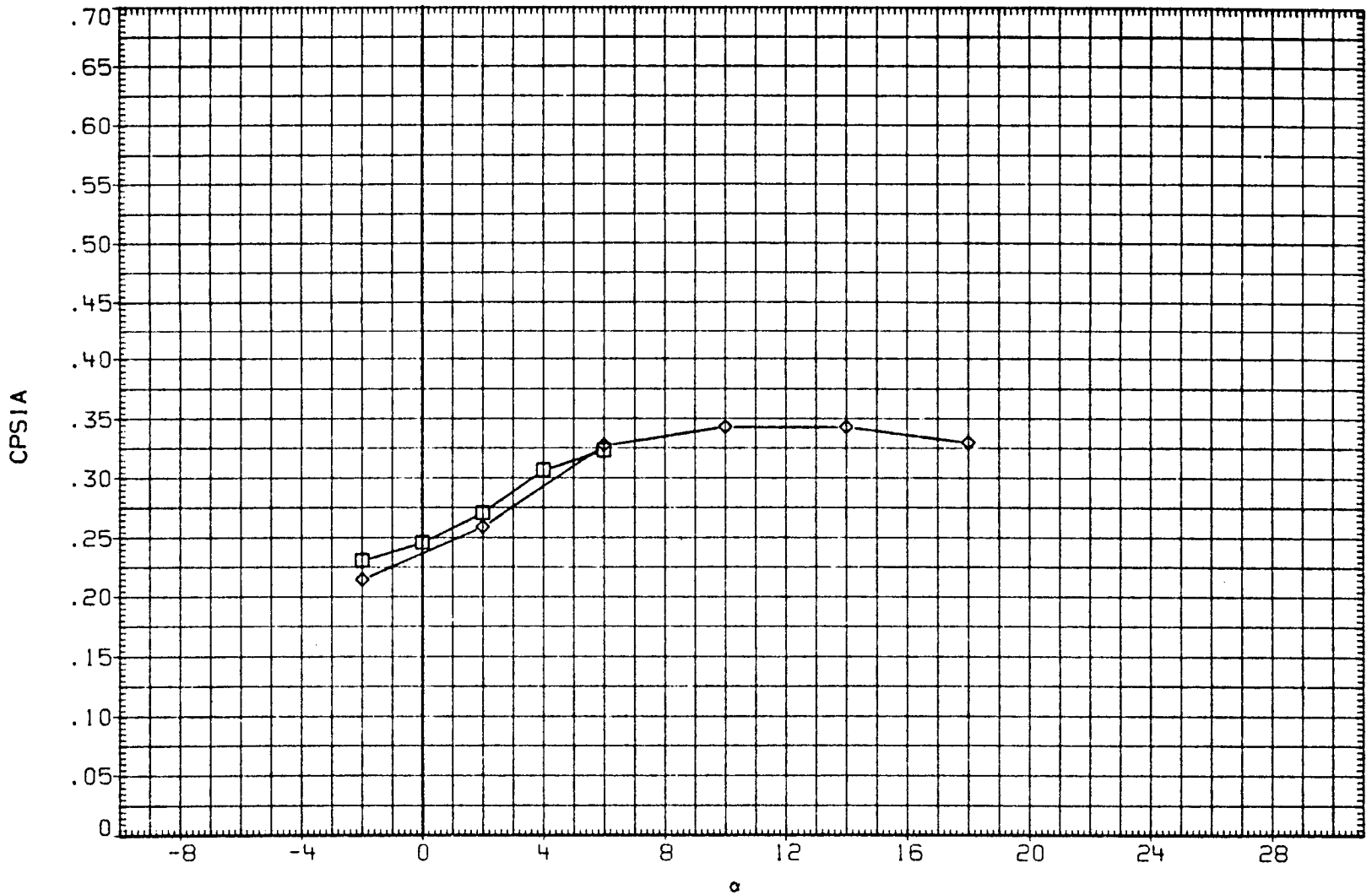


FIG. 12 0A232 SIDE PROBE CPSIA VERSUS ALPHA REPEATABILITY, INVERTED
DATA INTERPOLATED WITH MACH,ALPHA, PROBE ON LEFT SIDE

(I)MACH = .95 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVR105	○	DATA NOT AVAILABLE					.000	.000
AVR107	□	0A232	AEDC 16T	TF431	LFN.1S	RA .2P/S INV	.000	180.000
AVRJ09	◇	0A232	AEDC 16T	TF431	LFN.1S	RA .2P/S	.000	.000

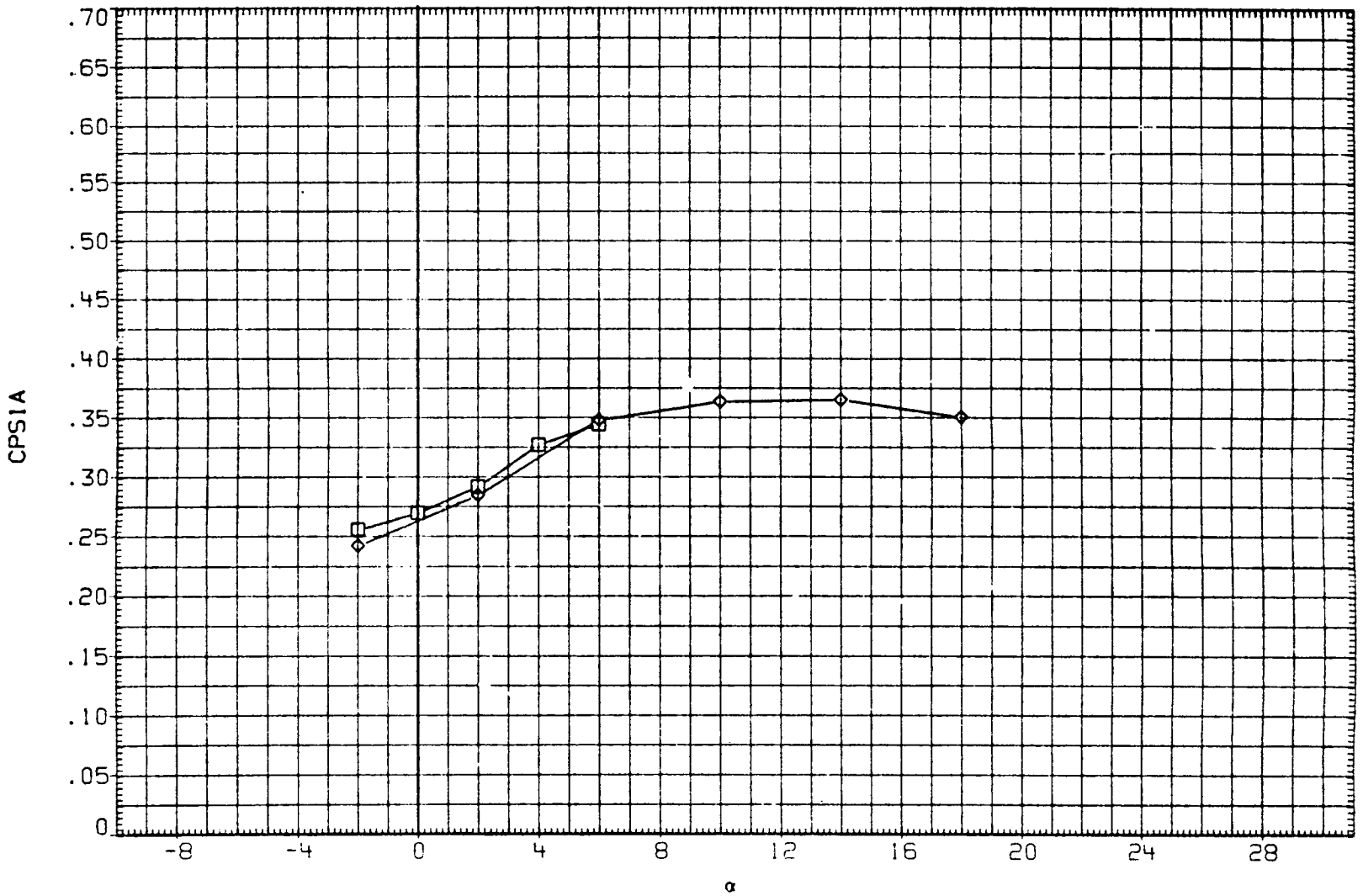


FIG. 12 0A232 SIDE PROBE CPS1A VERSUS ALPHA REPEATABILITY, INVERTED
DATA INTERPOLATED WITH MACH, ALPHA, PROBE ON LEFT SIDE

(J)MACH = .98 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVR105	○	DATA NOT AVAILABLE					.000	.000
AVR107	□	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	INV	.000	180.000
AVRJ09	◇	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S		.000	.000

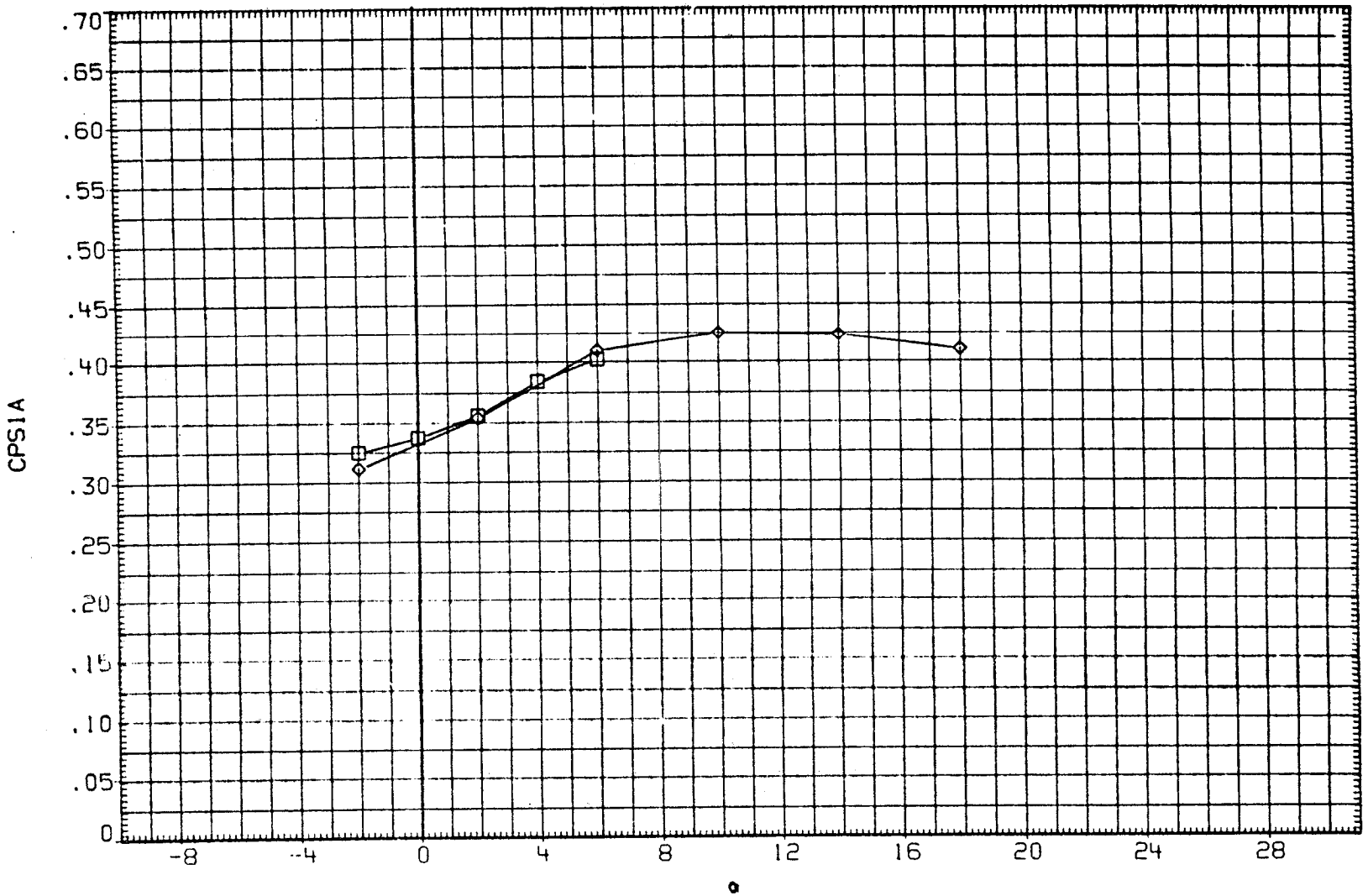


FIG. 12 0A232 SIDE PROBE CPS1A VERSUS ALPHA REPEATABILITY, INVERTED DATA INTERPOLATED WITH MACH, ALPHA, PROBE ON LEFT SIDE

(K)MACH = 1.05 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVRI05	○	DATA NOT AVAILABLE					.000	.000
AVRI07	□	OA232	AEDC 16T TF431	LFN.1S	RA .2P/S	INV	.000	180.000
AVRJ09	◇	OA232	AEDC 16T TF431	LFN.1S	RA .2P/S		.000	.000

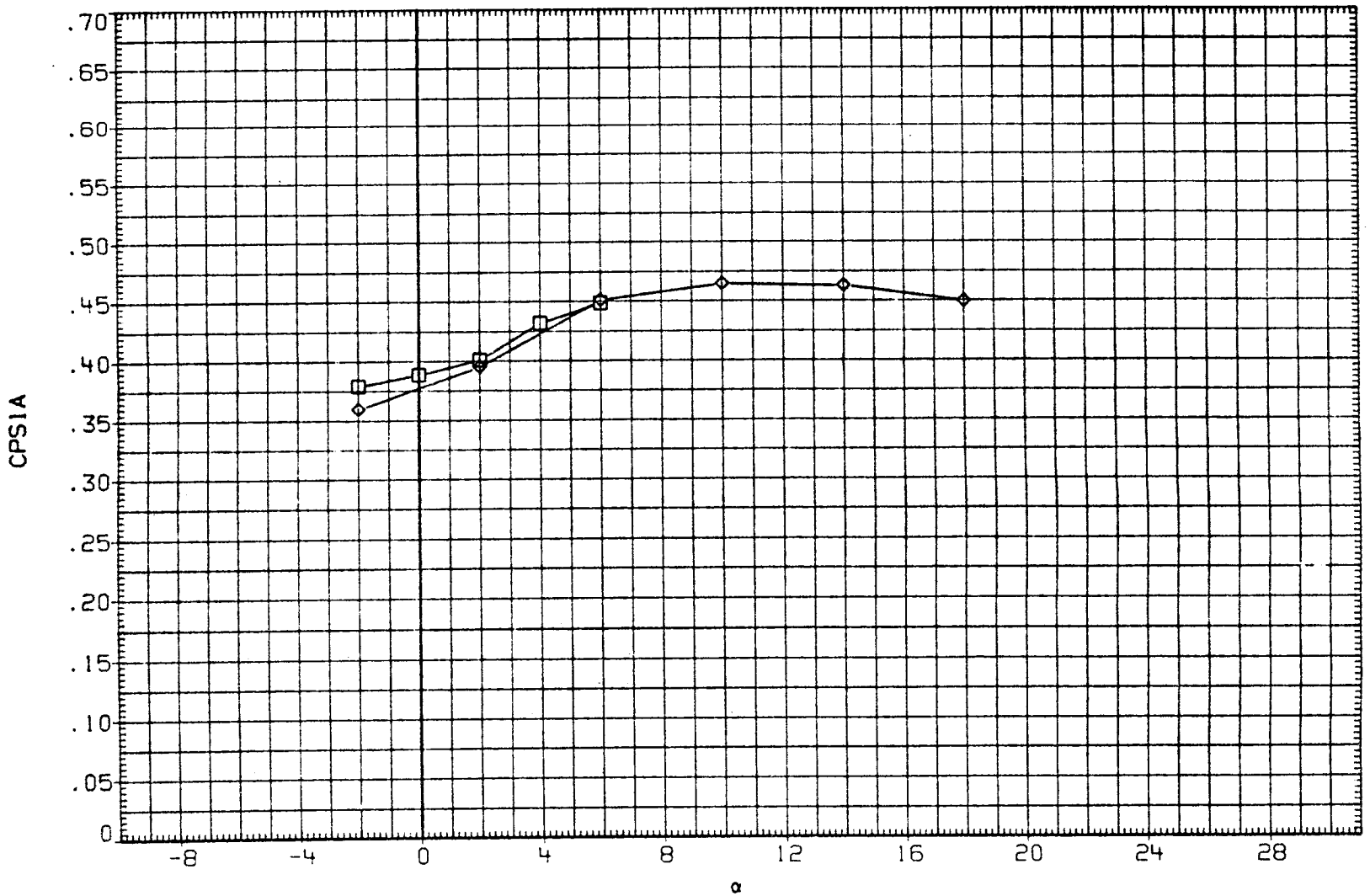


FIG. 12 OA232 SIDE PROBE CPS1A VERSUS ALPHA REPEATABILITY, INVERTED
DATA INTERPOLATED WITH MACH, ALPHA, PROBE ON LEFT SIDE

(L) MACH = 1.10 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVR105	○	DATA NOT AVAILABLE					.000	.000
AVR107	□	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	INV	.000	180.000
AVRJ09	◇	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S		.000	.000

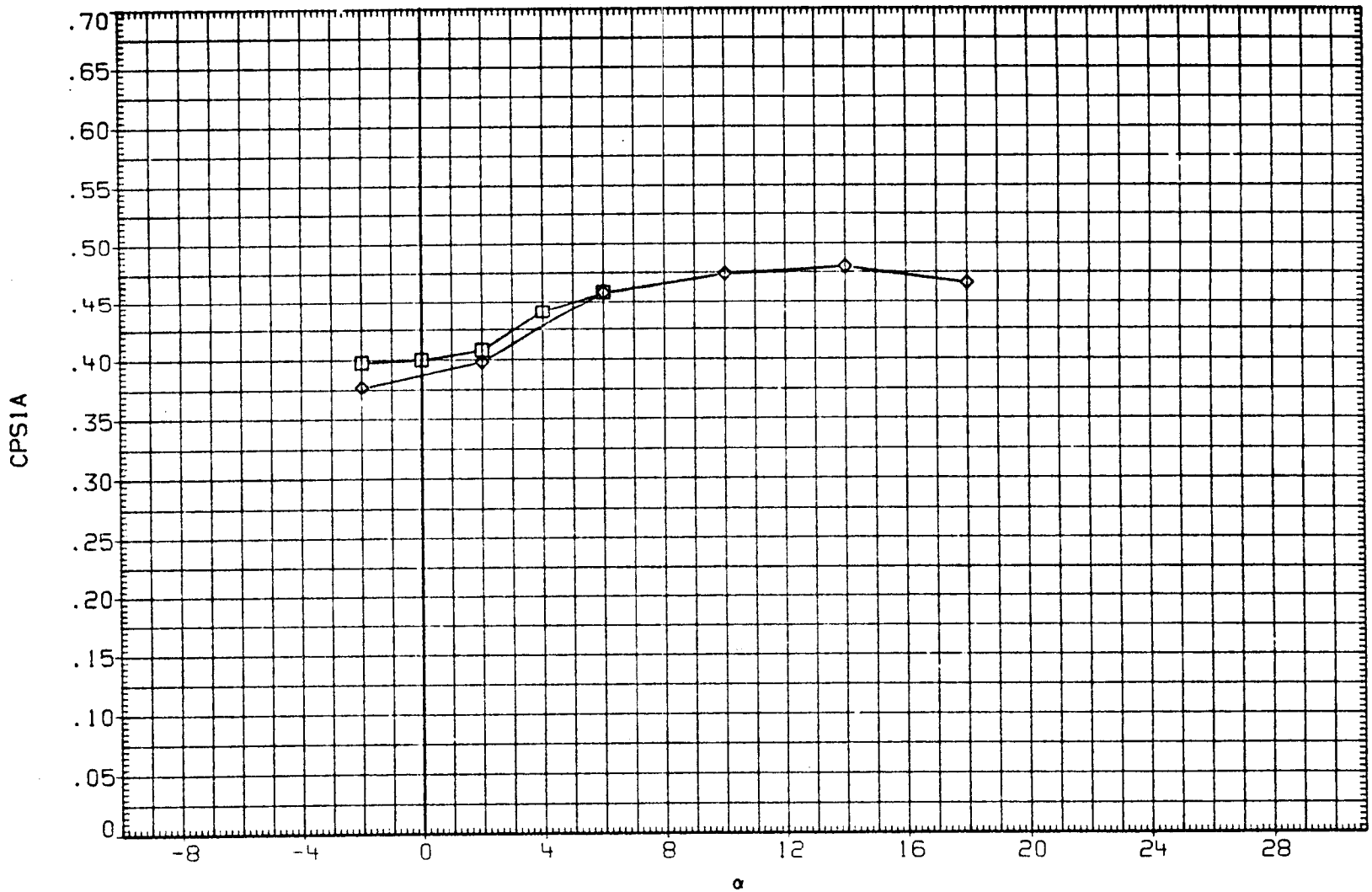


FIG. 12 0A232 SIDE PROBE CPS1A VERSUS ALPHA REPEATABILITY, INVERTED
DATA INTERPOLATED WITH MACH,ALPHA, PROBE ON LEFT SIDE

(M)MACH = 1.15 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVR105	○	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	LOW RN	.000	.000
AVR107	□	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	INV	.000	180.000
AVRJ09	◇	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S		.000	.000

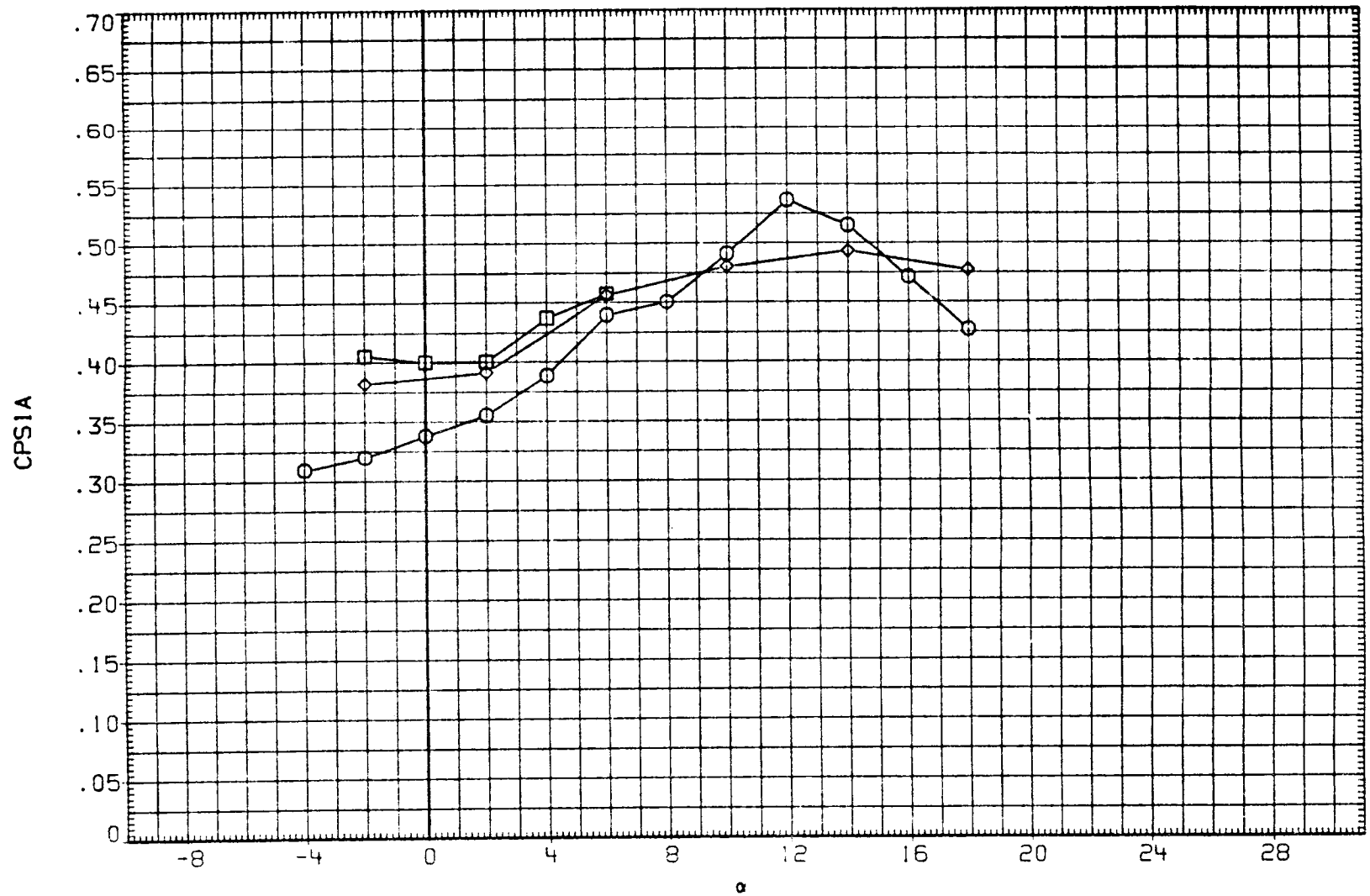


FIG. 12 0A232 SIDE PROBE CPS1A VERSUS ALPHA REPEATABILITY, INVERTED
DATA INTERPOLATED WITH MACH, ALPHA, PROBE ON LEFT SIDE

(N)MACH = 1.20 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVR105	○	DATA NOT AVAILABLE					.000	.000
AVR107	□	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	INV	.000	180.000
AVRJ09	◇	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S		.000	.000

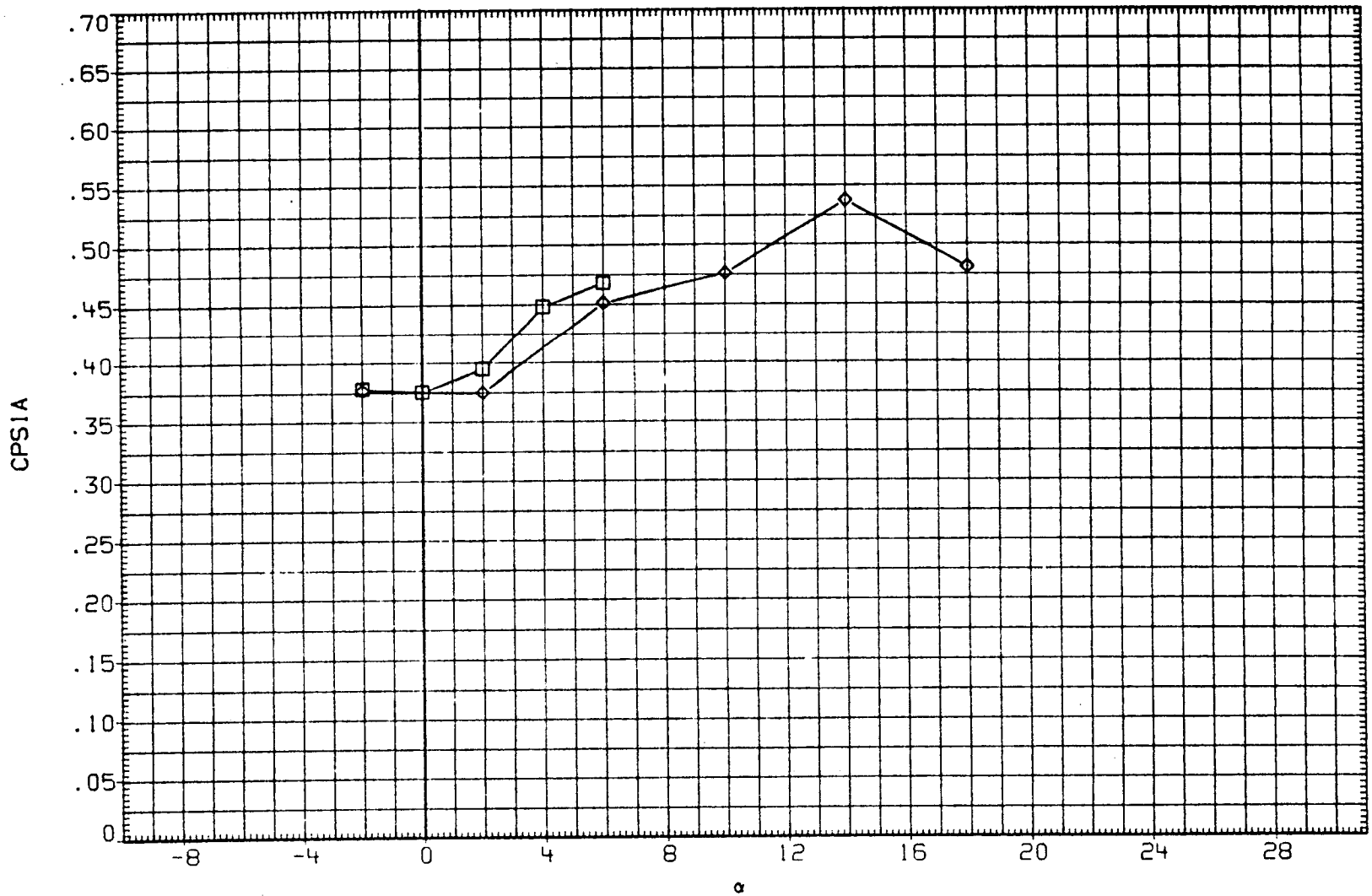


FIG. 12 0A232 SIDE PROBE CPS1A VERSUS ALPHA REPEATABILITY, INVERTED DATA INTERPOLATED WITH MACH, ALPHA, PROBE ON LEFT SIDE

(O) MACH = 1.30 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVR105	○	DATA NOT AVAILABLE				.000	.000
AVR107	□	0A232 AEDC 16T TF431	LFN.1S	RA .2P/S	INV	.000	180.000
AVRJ09	◇	DATA NOT AVAILABLE				.000	.000

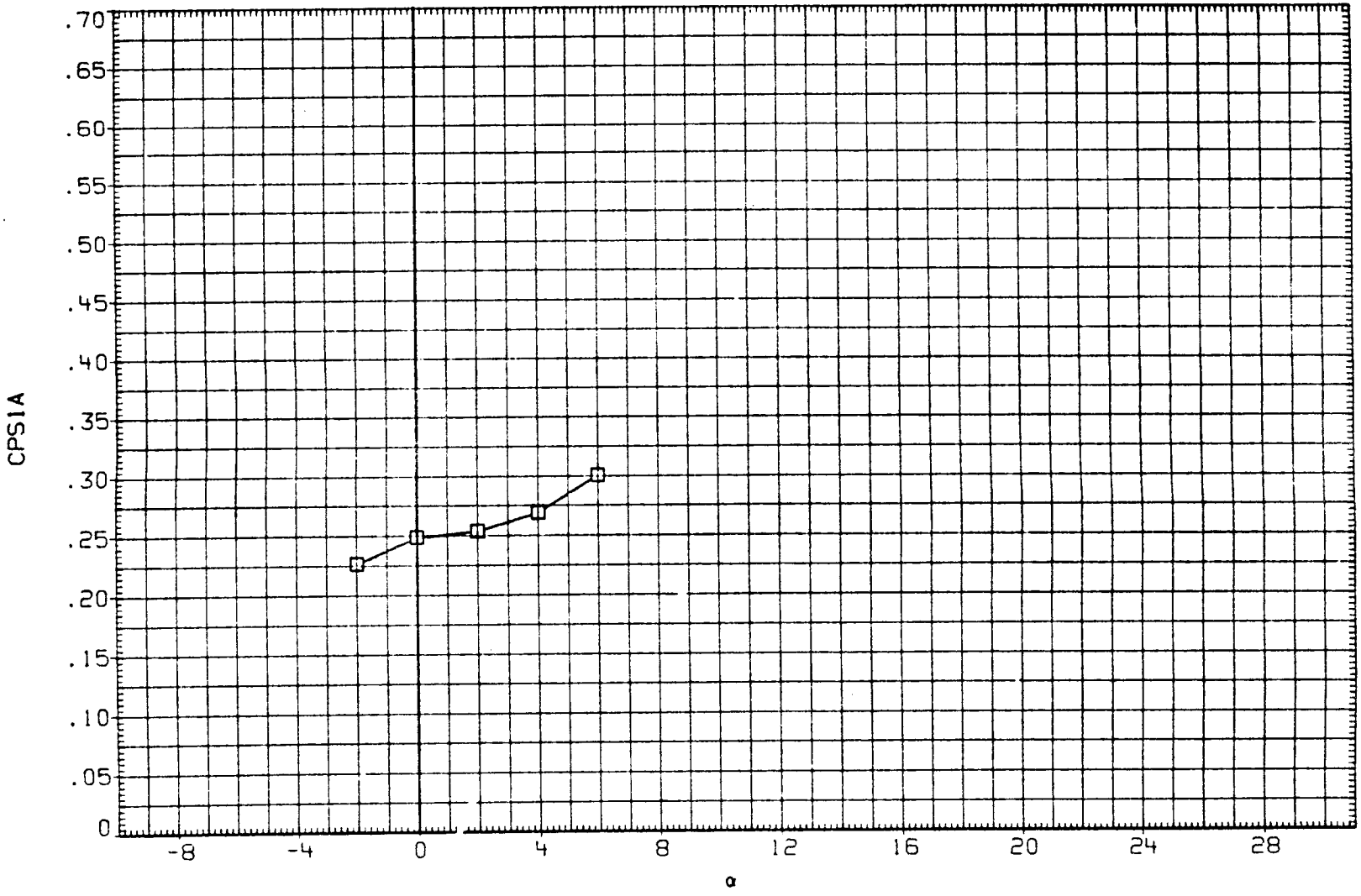


FIG. 12 0A232 SIDE PROBE CPS1A VERSUS ALPHA REPEATABILITY, INVERTED
DATA INTERPOLATED WITH MACH, ALPHA, PROBE ON LEFT SIDE

(P)MACH = 1.40 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVR105	○	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	LOW RN	.000	.000
AVR107	□	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	INV	.000	180.000
AVRJ09	◇	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S		.000	.000

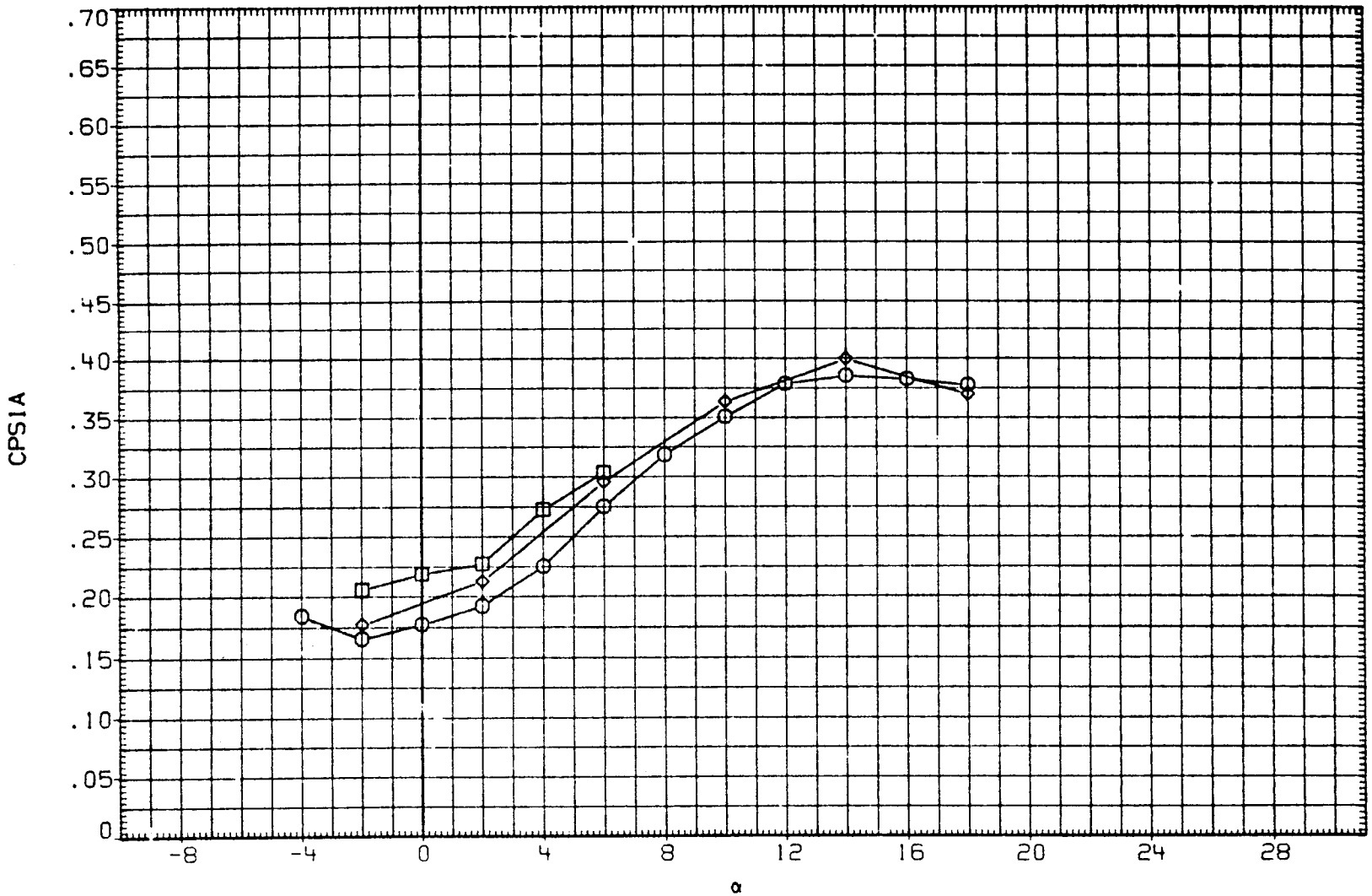


FIG. 12 0A232 SIDE PROBE CPS1A VERSUS ALPHA REPEATABILITY, INVERTED
DATA INTERPOLATED WITH MACH, ALPHA, PROBE ON LEFT SIDE

(Q)MACH = 1.55 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION						BETA	PHI
AVR105	○	0A232	AEDC	16T	TF431	LFN.1S	RA .2P/S LOW RN	.000	.000
AVR107	□	0A232	AEDC	16T	TF431	LFN.1S	RA .2P/S INV	.000	180.000
AVRJ09	◇	0A232	AEDC	16T	TF431	LFN.1S	RA .2P/S	.000	.000

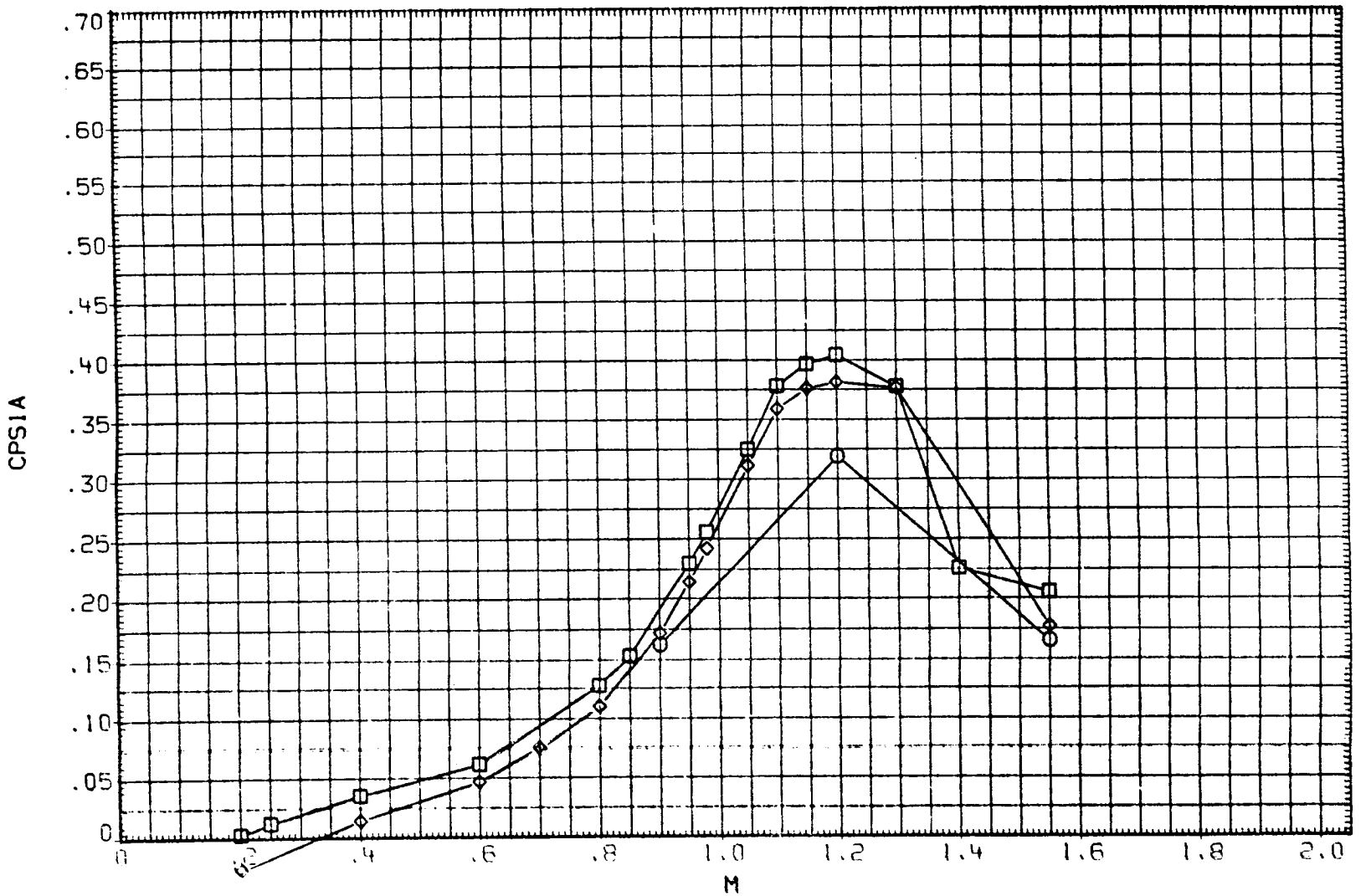


FIG. 13 0A232 SIDE PROBE CPS1A VERSUS MACH NUMBER REPEATABILITY, INVERTED
DATA INTERPOLATED WITH MACH, ALPHA, PROBE ON LEFT SIDE

(A) ALPHA = -2.00 DATE 09 AUG 78 PAGE 26

DATA SET	SYMBOL	CONFIGURATION		BETA	PHI
AVRI05	○	0A232 AEDC 16T TF431 LFN.1S	RA .2P/S LOW RN	.000	.000
AVRI07	□	0A232 AEDC 16T TF431 LFN.1S	RA .2P/S INV	.000	180.000
AVRJ09	◇	DATA NOT AVAILABLE		.000	.000

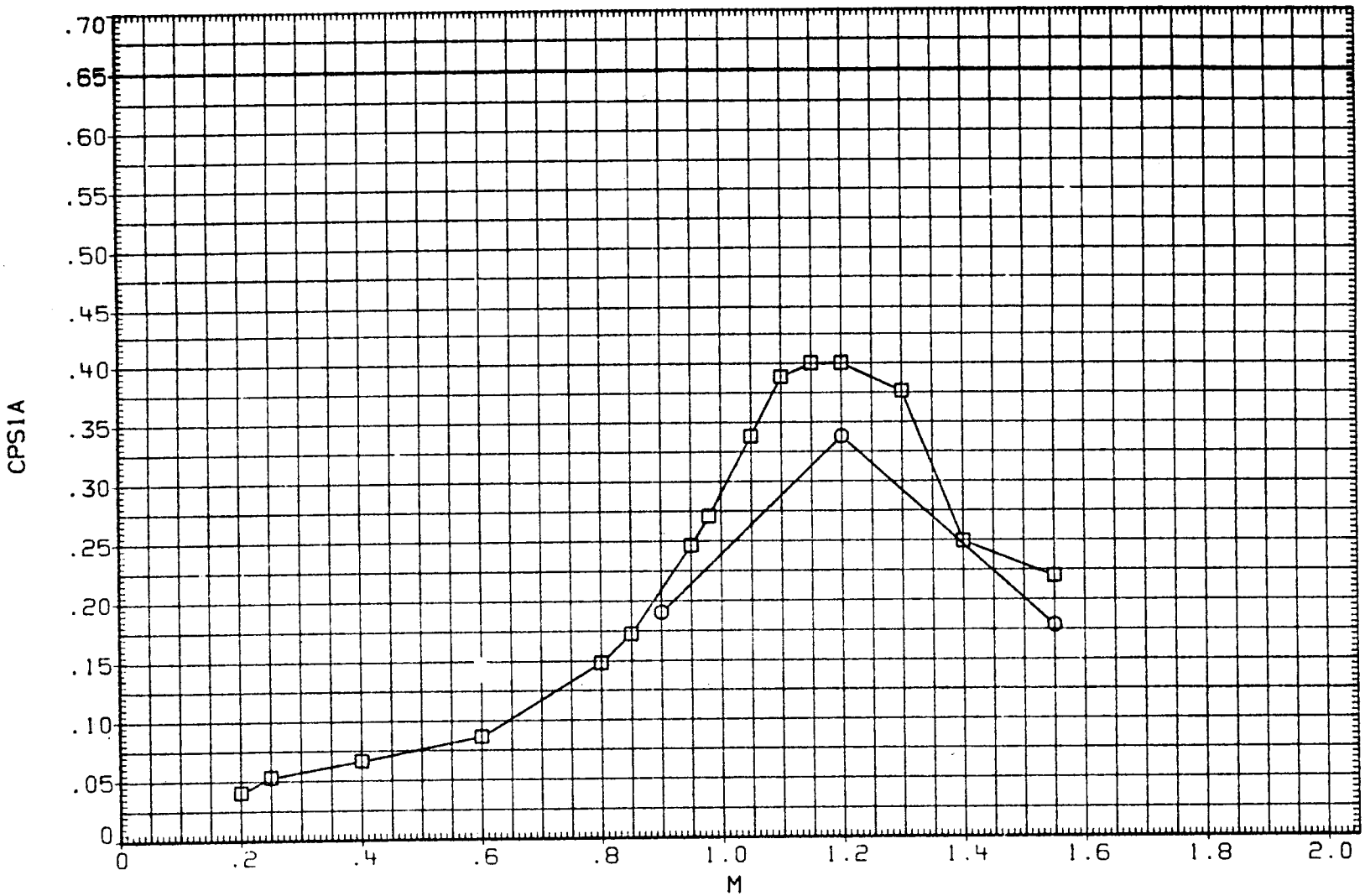


FIG. 13 0A232 SIDE PROBE CPS1A VERSUS MACH NUMBER REPEATABILITY, INVERTED DATA INTERPOLATED WITH MACH, ALPHA, PROBE ON LEFT SIDE

(B) ALPHA = .00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVR105	○	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S LOW RN		.000	.000
AVR107	□	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	INV	.000	180.000
AVRJ09	◇	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S		.000	.000

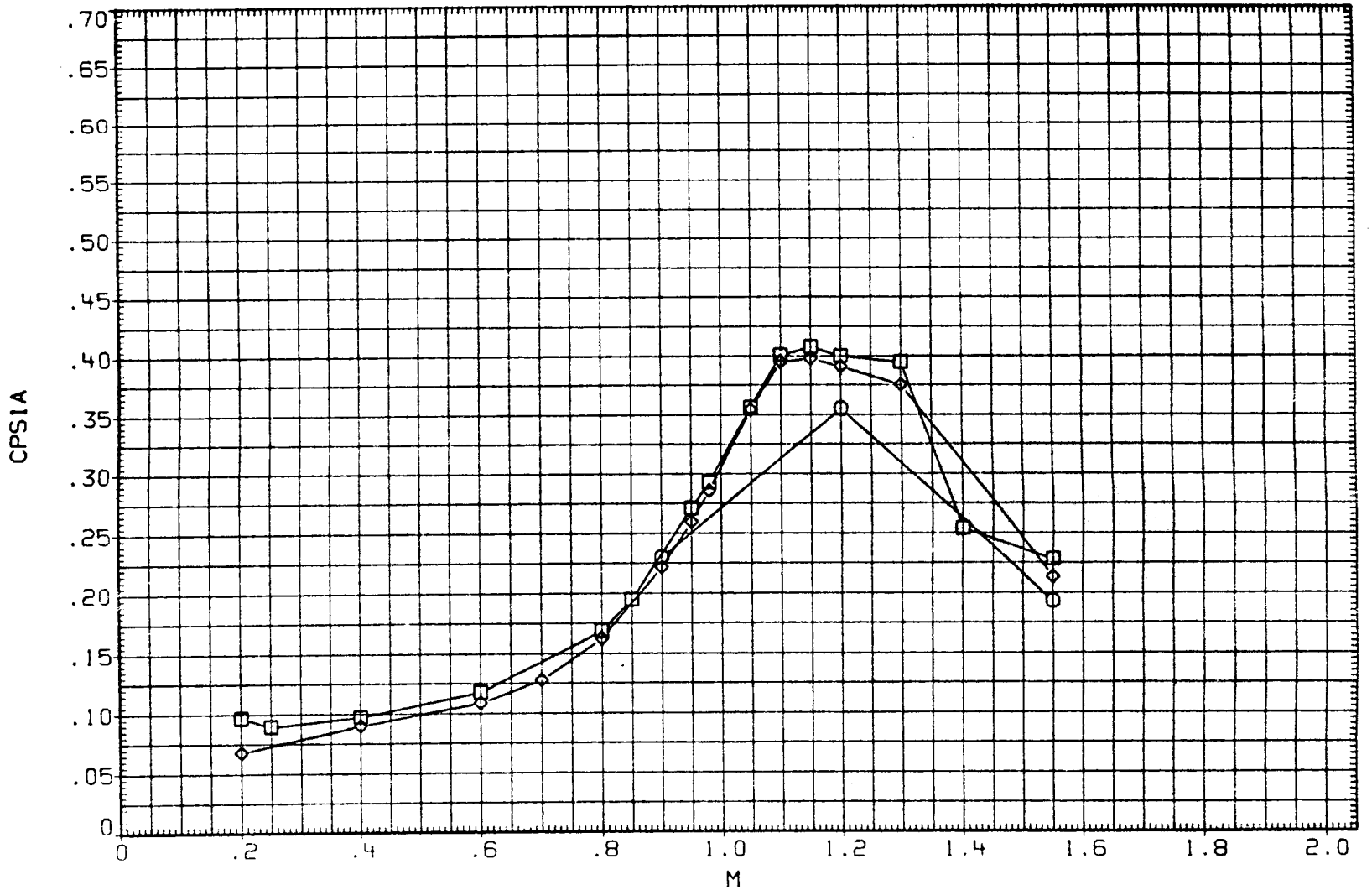


FIG. 13 0A232 SIDE PROBE CPS1A VERSUS MACH NUMBER REPEATABILITY, INVERTED DATA INTERPOLATED WITH MACH, ALPHA, PROBE ON LEFT SIDE

(C) ALPHA = 2.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVR105	○	0A232 AEDC 16T TF431 LFN.1S RA .2P/S LOW RN	.000	.000
AVR107	□	0A232 AEDC 16T TF431 LFN.1S RA .2P/S INV	.000	180.000
AVRJ09	◇	DATA NOT AVAILABLE	.000	.000

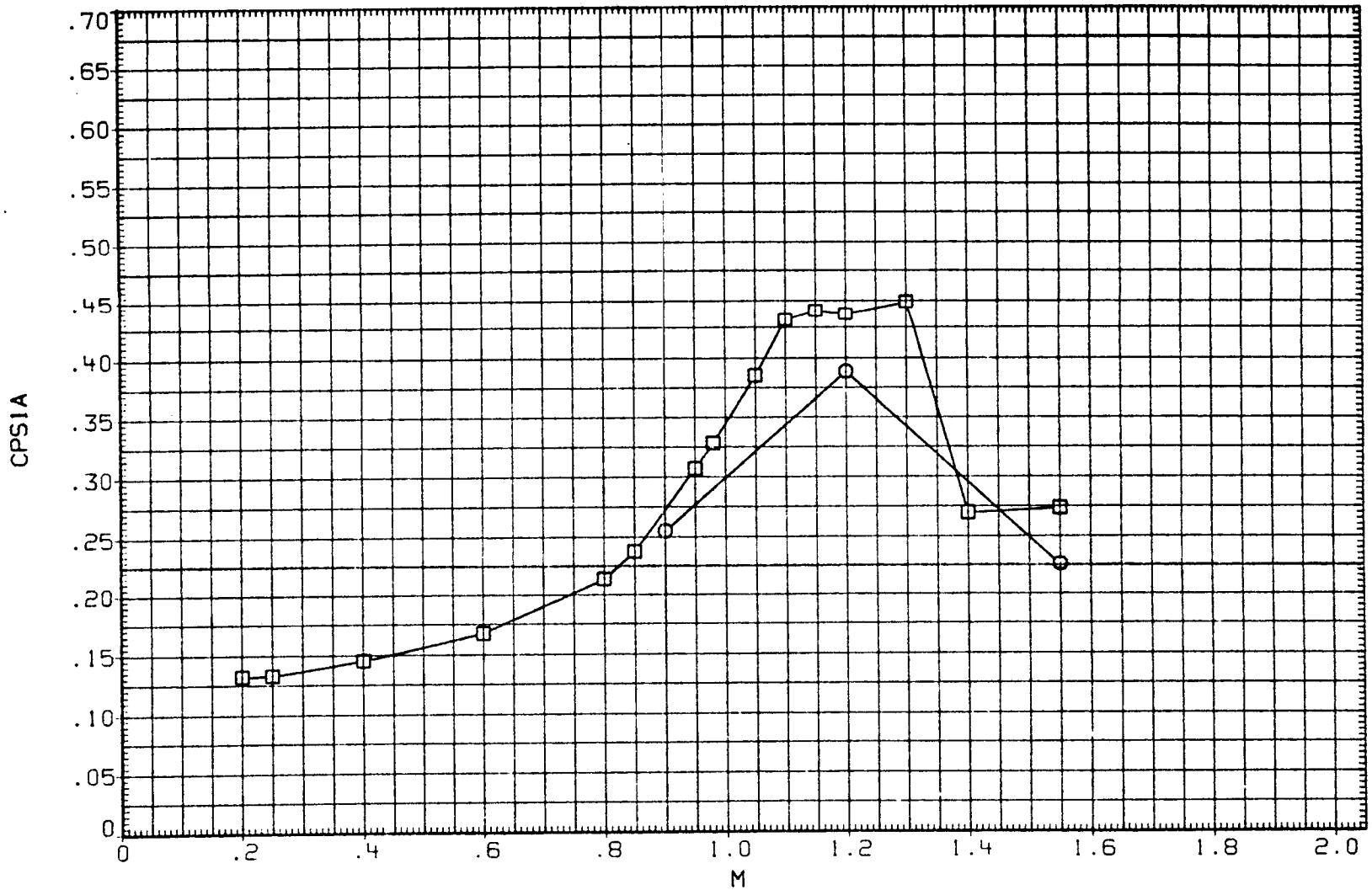


FIG. 13 0A232 SIDE PROBE CPSIA VERSUS MACH NUMBER REPEATABILITY, INVERTED DATA INTERPOLATED WITH MACH, ALPHA, PROBE ON LEFT SIDE

(D) ALPHA = 4.00 DATE 09 AUG 78 PAGE 29

DATA SET	SYMBOL	CONFIGURATION						BETA	PHI
AVR105	○	0A232	AEDC	16T	TF431	LFN.1S	RA .2P/S LOW RN	.000	.000
AVR107	□	0A232	AEDC	16T	TF431	LFN.1S	RA .2P/S INV	.000	180.000
AVRJ09	◇	0A232	AEDC	16T	TF431	LFN.1S	RA .2P/S	.000	.000

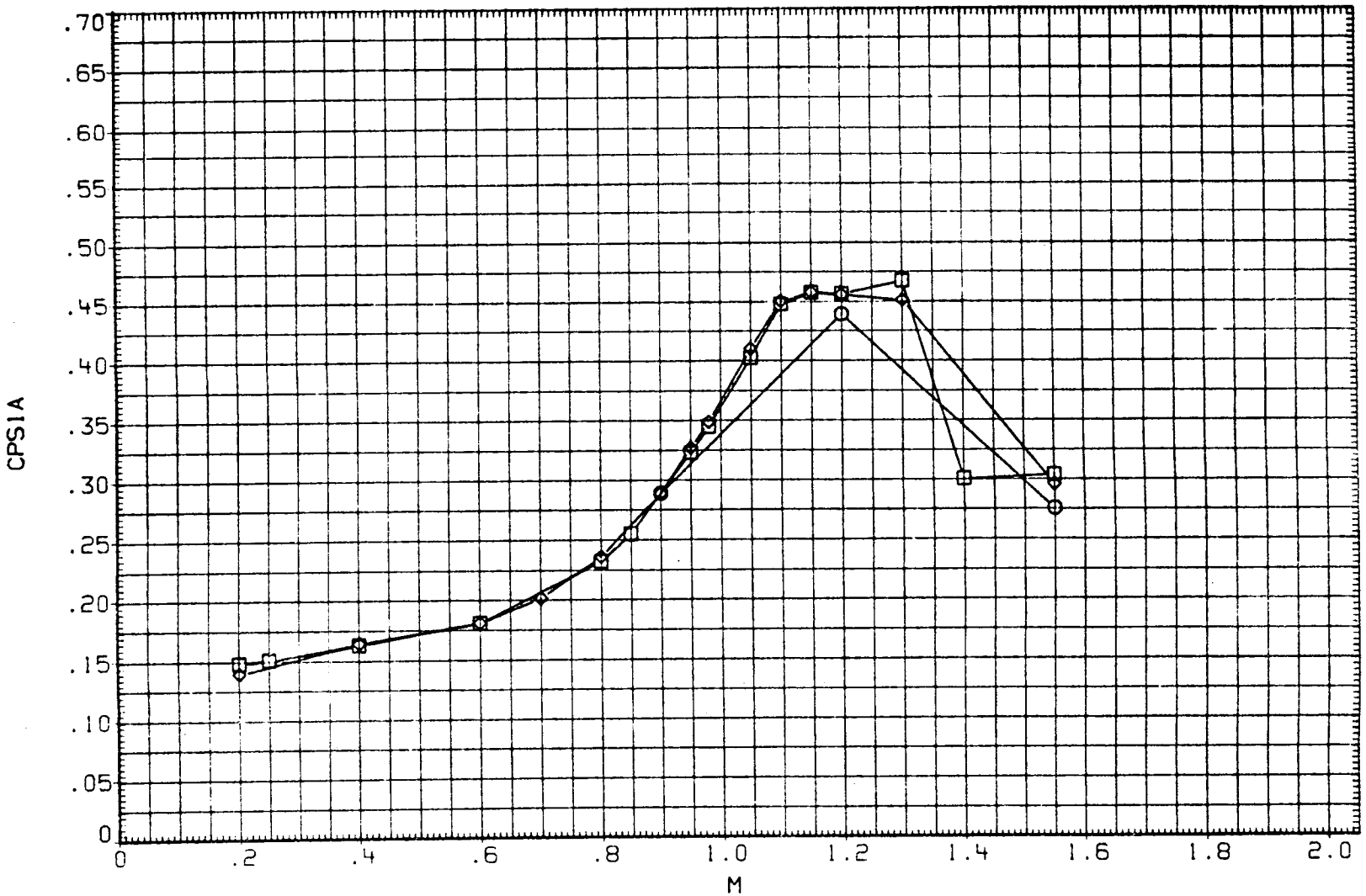


FIG. 13 0A232 SIDE PROBE CPS1A VERSUS MACH NUMBER REPEATABILITY, INVERTED
DATA INTERPOLATED WITH MACH, ALPHA, PROBE ON LEFT SIDE

(E)ALPHA = 6.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION		BETA	PHI
AVRI05	○	0A232 AEDC 16T TF431 LFN.1S	RA .2P/S LOW RN	.000	.000
AVRI07	□	DATA NOT AVAILABLE		.000	180.000
AVRJ09	◇	0A232 AEDC 16T TF431 LFN.1S	RA .2P/S	.000	.000

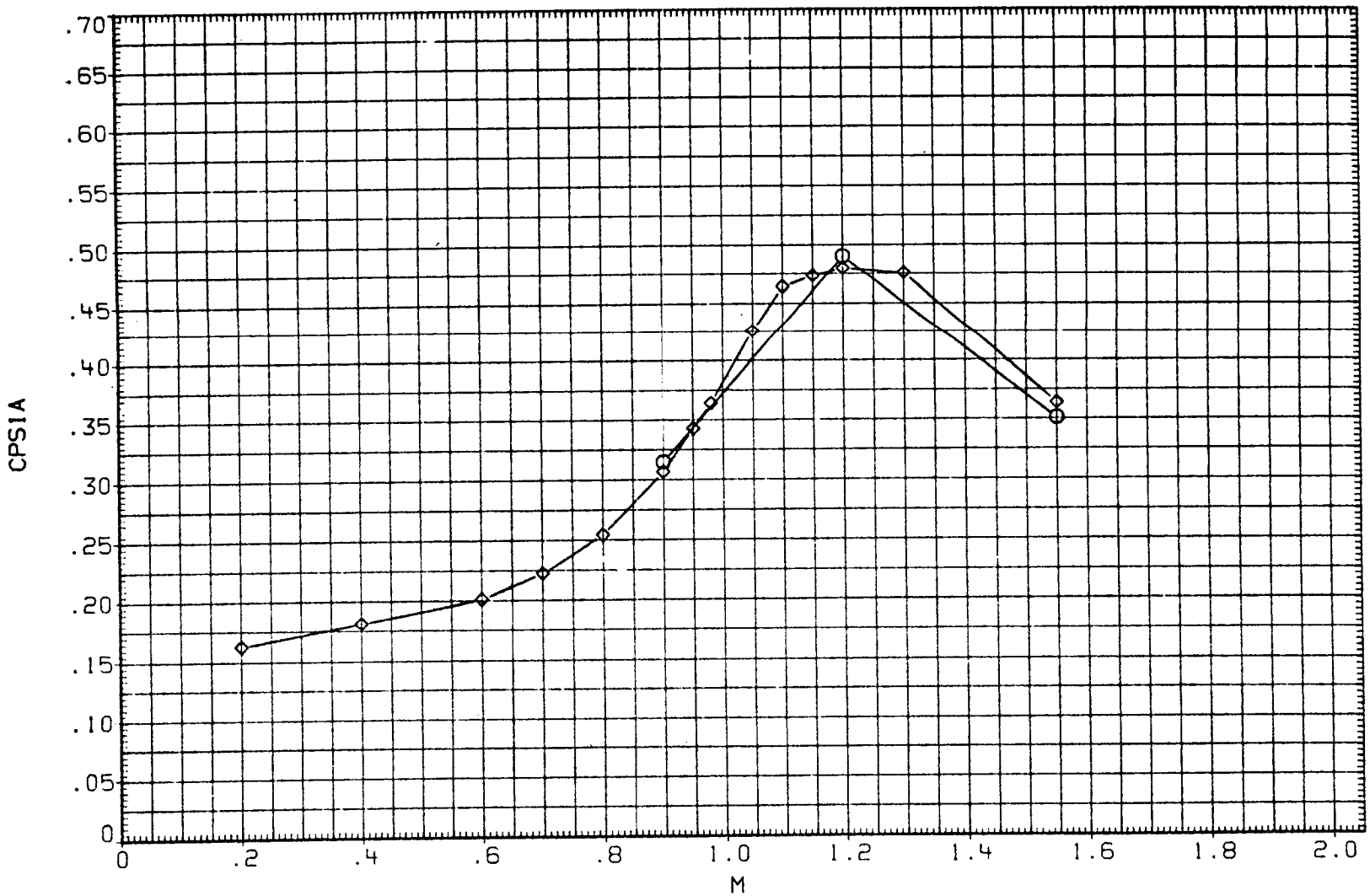


FIG. 13 0A232 SIDE PROBE CPS1A VERSUS MACH NUMBER REPEATABILITY, INVERTED DATA INTERPOLATED WITH MACH, ALPHA, PROBE ON LEFT SIDE

(F) ALPHA = 10.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION			BETA	PHI
AVR105	○	0A232 AEDC 16T TF431	LFN.1S	RA .2P/S LOW RN	.000	.000
AVR107	□	DATA NOT AVAILABLE			.000	180.000
AVRJ09	◇	0A232 AEDC 16T TF431	LFN.1S	RA .2P/S	.000	.000

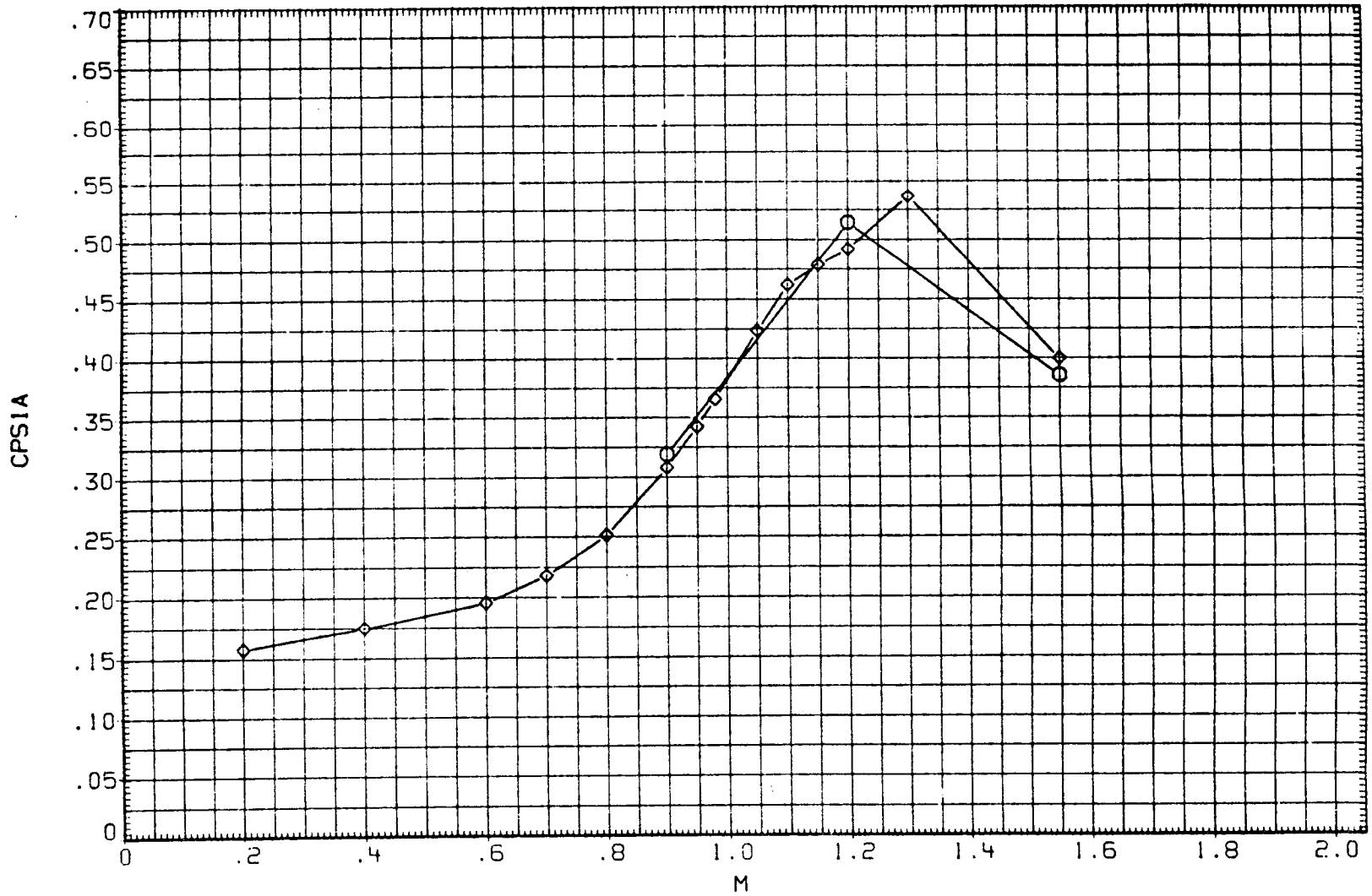


FIG. 13 0A232 SIDE PROBE CPS1A VERSUS MACH NUMBER REPEATABILITY, INVERTED
DATA INTERPOLATED WITH MACH, ALPHA, PROBE ON LEFT SIDE

(G)ALPHA = 14.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION		BETA	PHI
AVRI05	○	OA232 AEDC 16T TF431 LFN.1S	RA .2P/S LOW RN	.000	.000
AVRI07	□	DATA NOT AVAILABLE		.000	180.000
AVRJ09	◇	OA232 AEDC 16T TF431 LFN.1S	RA .2P/S	.000	.000

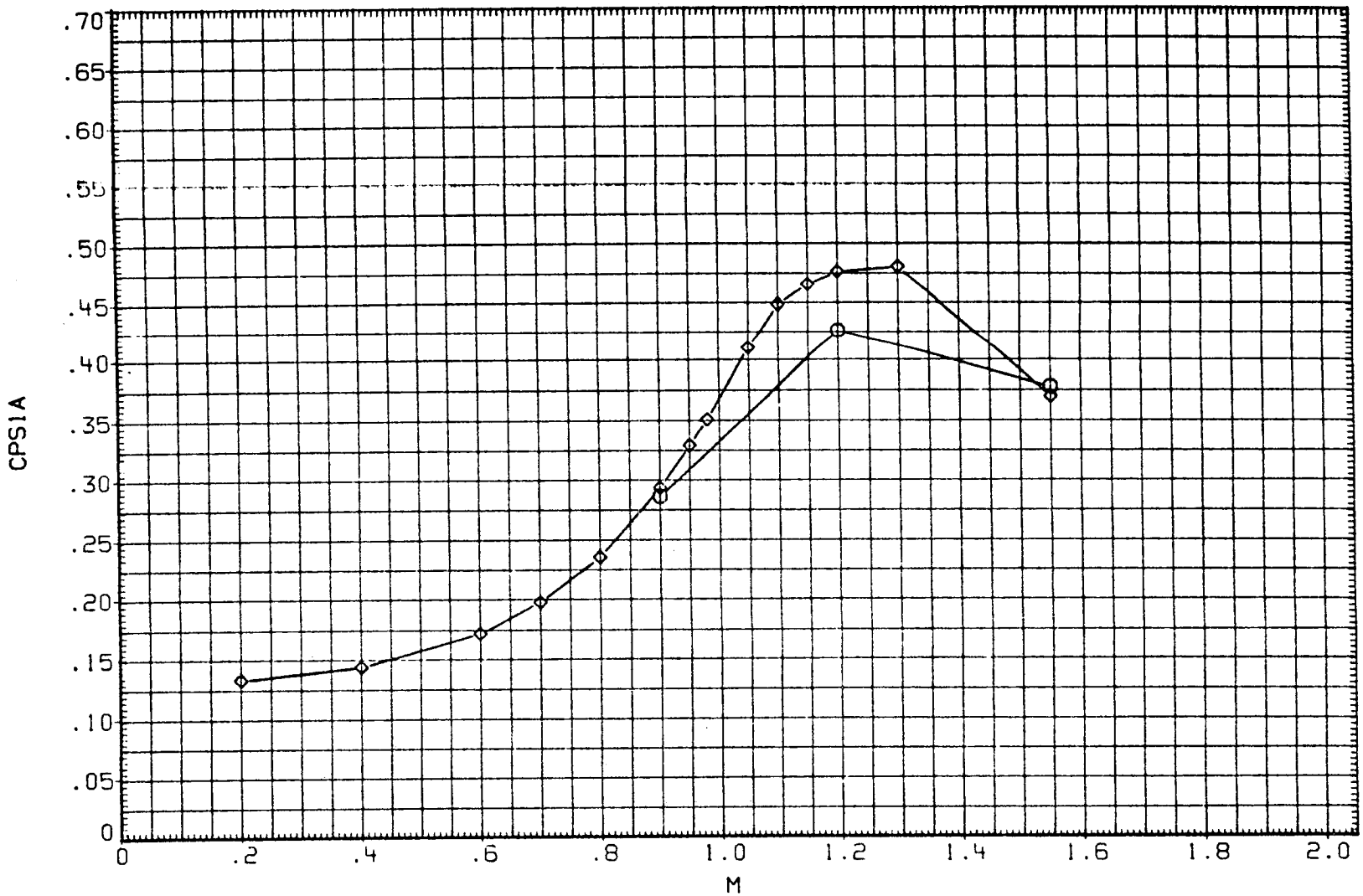


FIG. 13 OA232 SIDE PROBE CPS1A VERSUS MACH NUMBER REPEATABILITY, INVERTED
DATA INTERPOLATED WITH MACH, ALPHA, PROBE ON LEFT SIDE

(H) ALPHA = 18.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRJ14	○	0A232 AEDC 16T TF431 LA .2A RFN.1S	.000	.000
AVRI17	□	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
AVRI18	◇	DATA NOT AVAILABLE	.000	.000
AVRI19	△	DATA NOT AVAILABLE	.000	.000
AVRI20	⏢	DATA NOT AVAILABLE	.000	.000

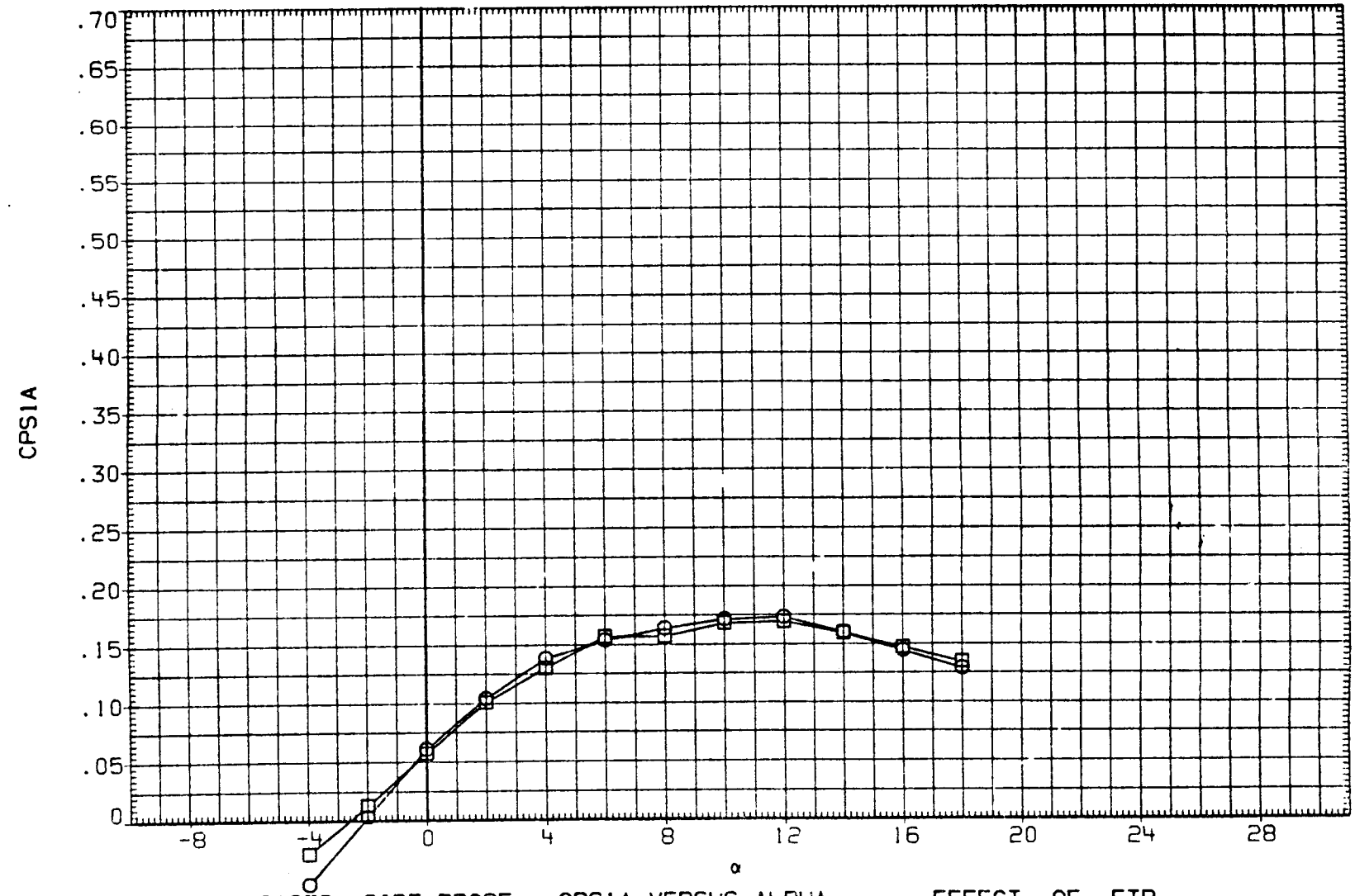


FIG. 14 0A232 SIDE PROBE CPS1A VERSUS ALPHA EFFECT OF FTP
DATA INTERPOLATED WITH MACH,ALPHA, PROBE ON RIGHT SIDE

(A)MACH = .20 DATE 03 AUG 78

DATA SET	SYMBOL	CONFIGURATION			BETA	PHI
AVRJ14	○	0A232 AEDC 16T TF431 LA .2A	RFN.1S		.000	.000
AVRI17	□	DATA NOT AVAILABLE			.000	.000
AVRI18	◇	0A232 AEDC 16T TF431 LA .2A	RFN.1S	FTP	.000	.000
AVRI19	△	DATA NOT AVAILABLE			.000	.000
AVRI20	▽	DATA NOT AVAILABLE			.000	.000

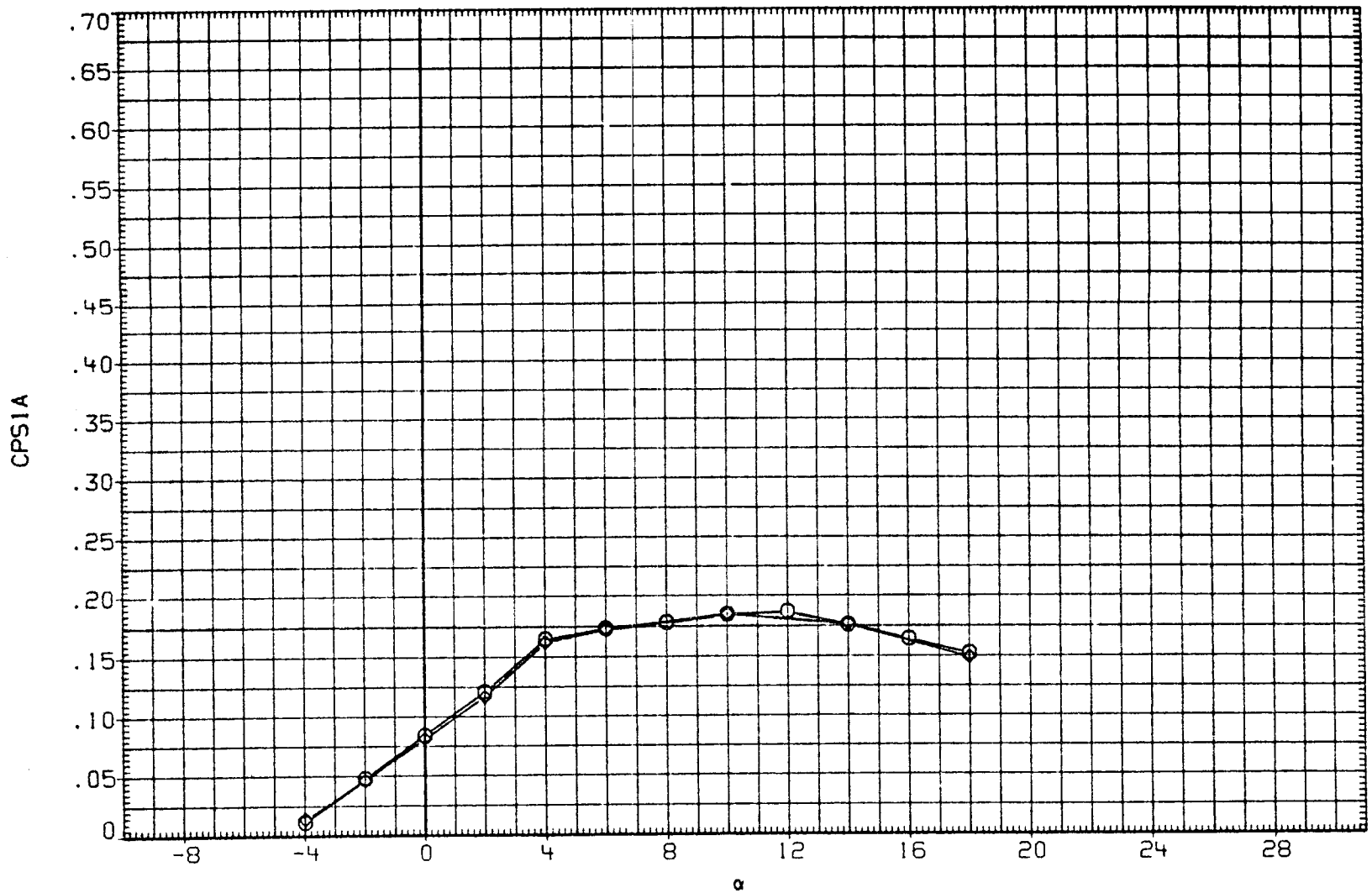


FIG. 14 0A232 SIDE PROBE CPS1A VERSUS ALPHA EFFECT OF FTP
DATA INTERPOLATED WITH MACH, ALPHA, PROBE ON RIGHT SIDE

(B)MACH = .40 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION		BETA	PHI
AVRJ14	○	0A232 AEDC 16T TF431 LA .2A	RFN.1S	.000	.000
AVRI17	□	DATA NOT AVAILABLE		.000	.000
AVRI18	◇	DATA NOT AVAILABLE		.000	.000
AVRI19	△	0A232 AEDC 16T TF431 LA .2A	RFN.1S FTP	.000	.000
AVRI20	▽	DATA NOT AVAILABLE		.000	.000

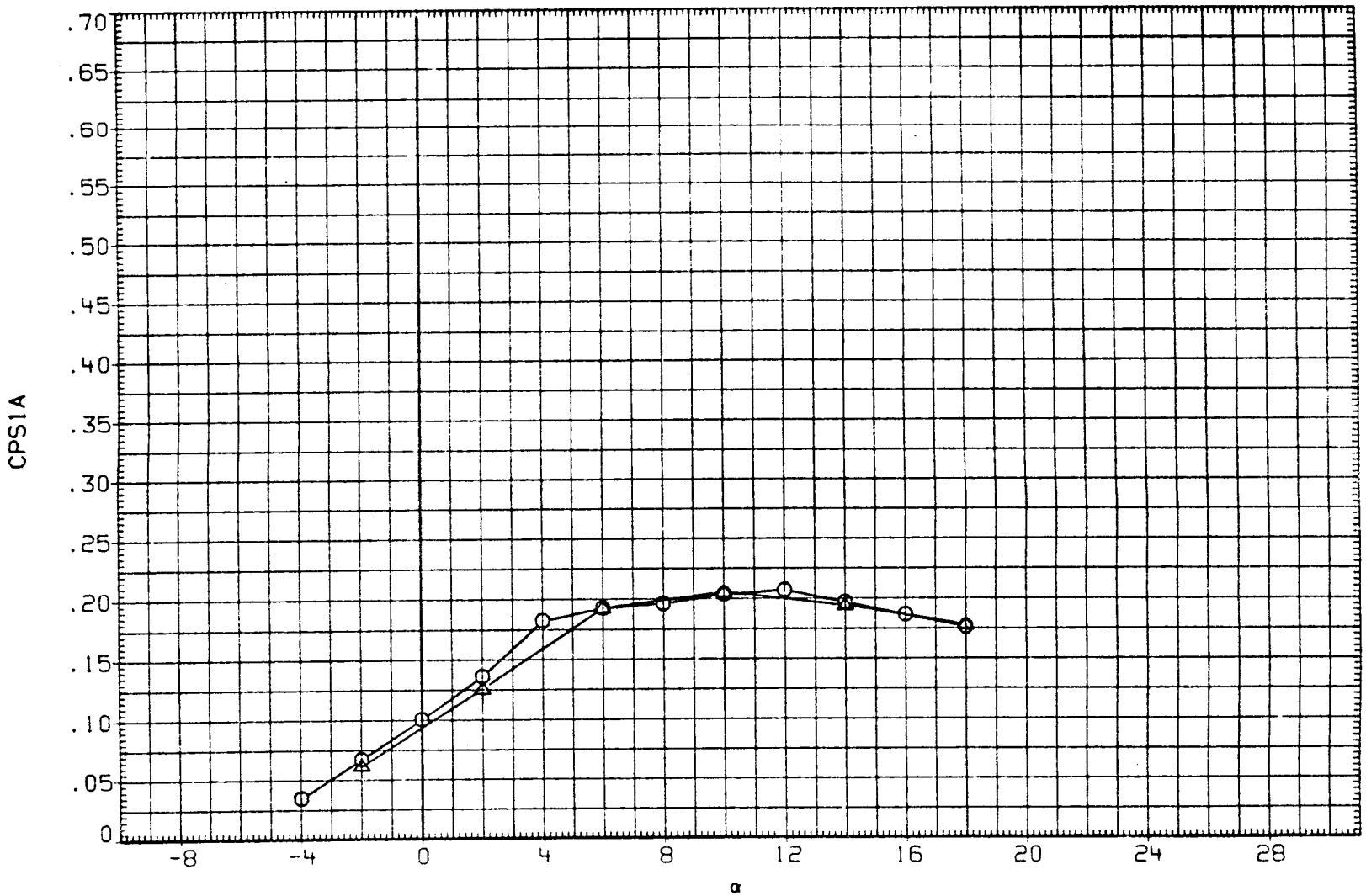


FIG. 14 0A232 SIDE PROBE CPS1A VERSUS ALPHA EFFECT OF FTP
DATA INTERPOLATED WITH MACH, ALPHA, PROBE ON RIGHT SIDE

(C) MACH = .60 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION		BETA	PHI
AVRJ14	○	OA232 AEDC 16T TF431 LA .2A	RFN.1S	.000	.000
AVRI17	□	DATA NOT AVAILABLE		.000	.000
AVRI18	◇	DATA NOT AVAILABLE		.000	.000
AVRI19	△	OA232 AEDC 16T TF431 LA .2A	RFN.1S FTP	.000	.000
AVRI20	▷	DATA NOT AVAILABLE		.000	.000

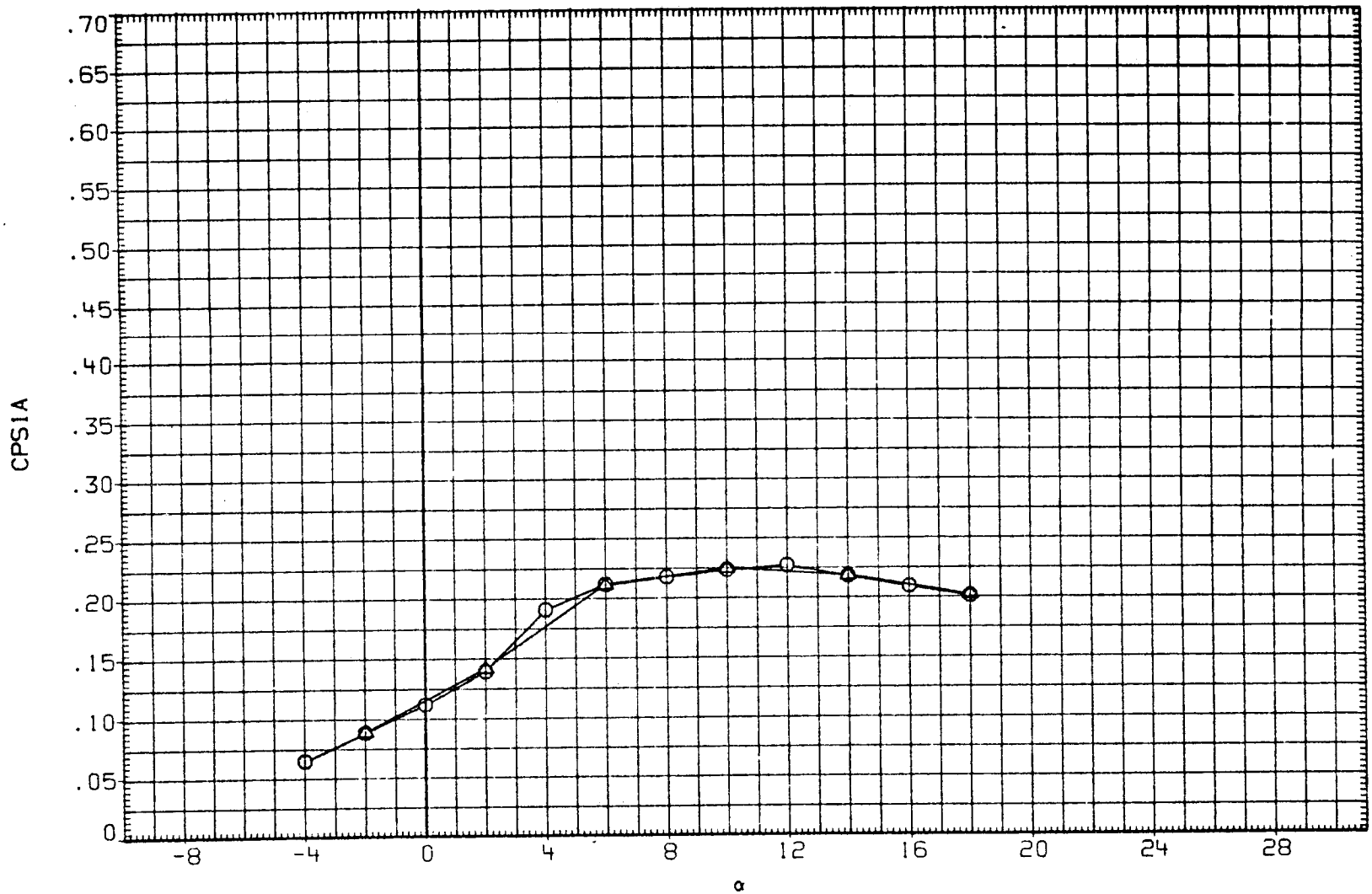


FIG. 14 OA232 SIDE PROBE CPS1A VERSUS ALPHA EFFECT OF FTP
DATA INTERPOLATED WITH MACH, ALPHA, PROBE ON RIGHT SIDE

(D)MACH = .70 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRJ14	○	DATA NOT AVAILABLE	.000	.000
AVRI17	□	DATA NOT AVAILABLE	.000	.000
AVRI18	◇	DATA NOT AVAILABLE	.000	.000
AVRI19	△	DATA NOT AVAILABLE	.000	.000
AVRI20	▷	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000

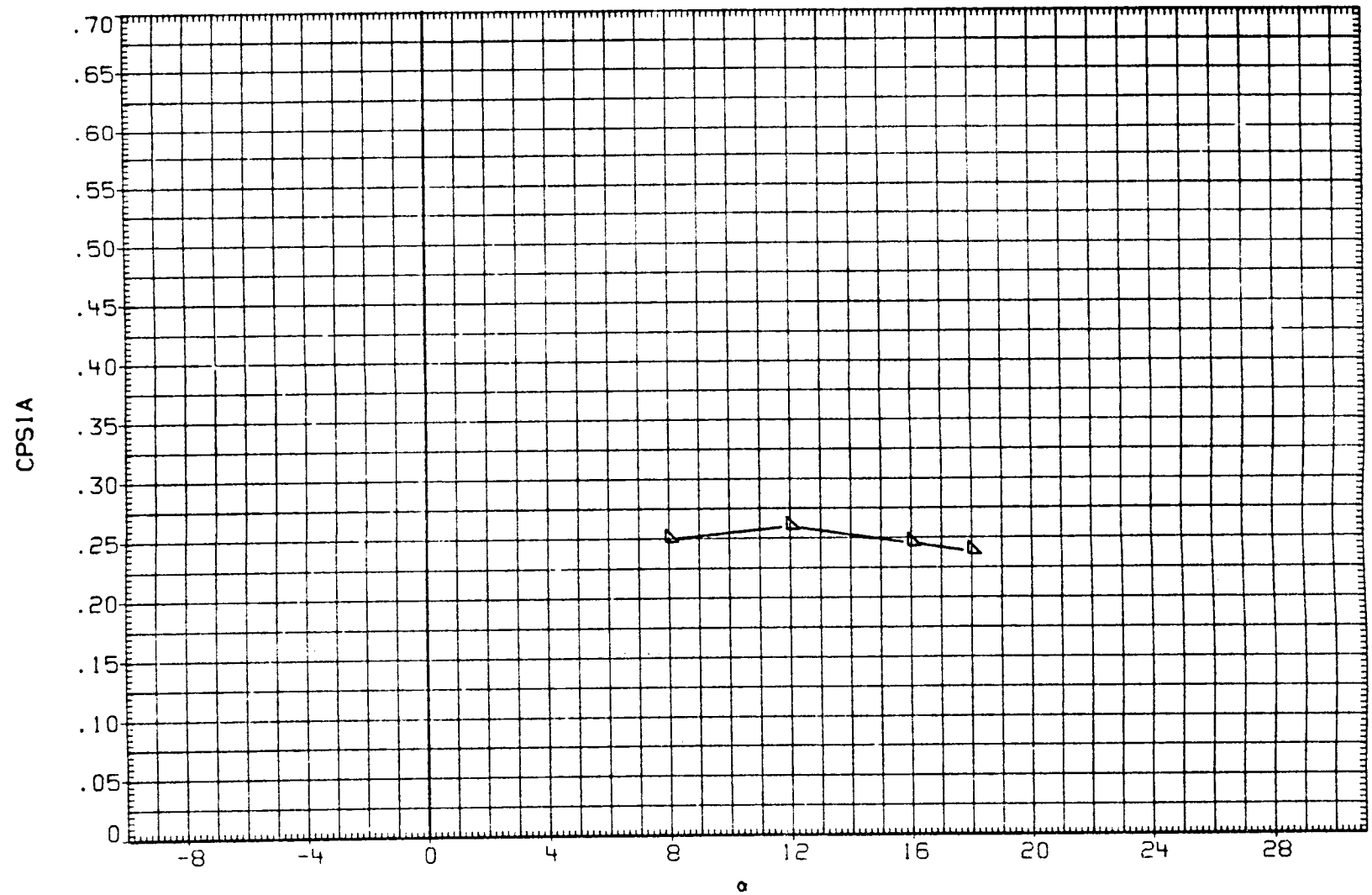


FIG. 14 0A232 SIDE PROBE CPS1A VERSUS ALPHA EFFECT OF FTP
DATA INTERPOLATED WITH MACH, ALPHA, PROBE ON RIGHT SIDE

(E) MACH = .80 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVR104	○	0A232 AEDC 16T TF431 LFN.1S RA .2P/S	.000	.000
AVR105	□	DATA NOT AVAILABLE	.000	.000
AVR121	◇	0A232 AEDC 16T TF431 LFN.1S RA .2P/S HI RN	.000	.000

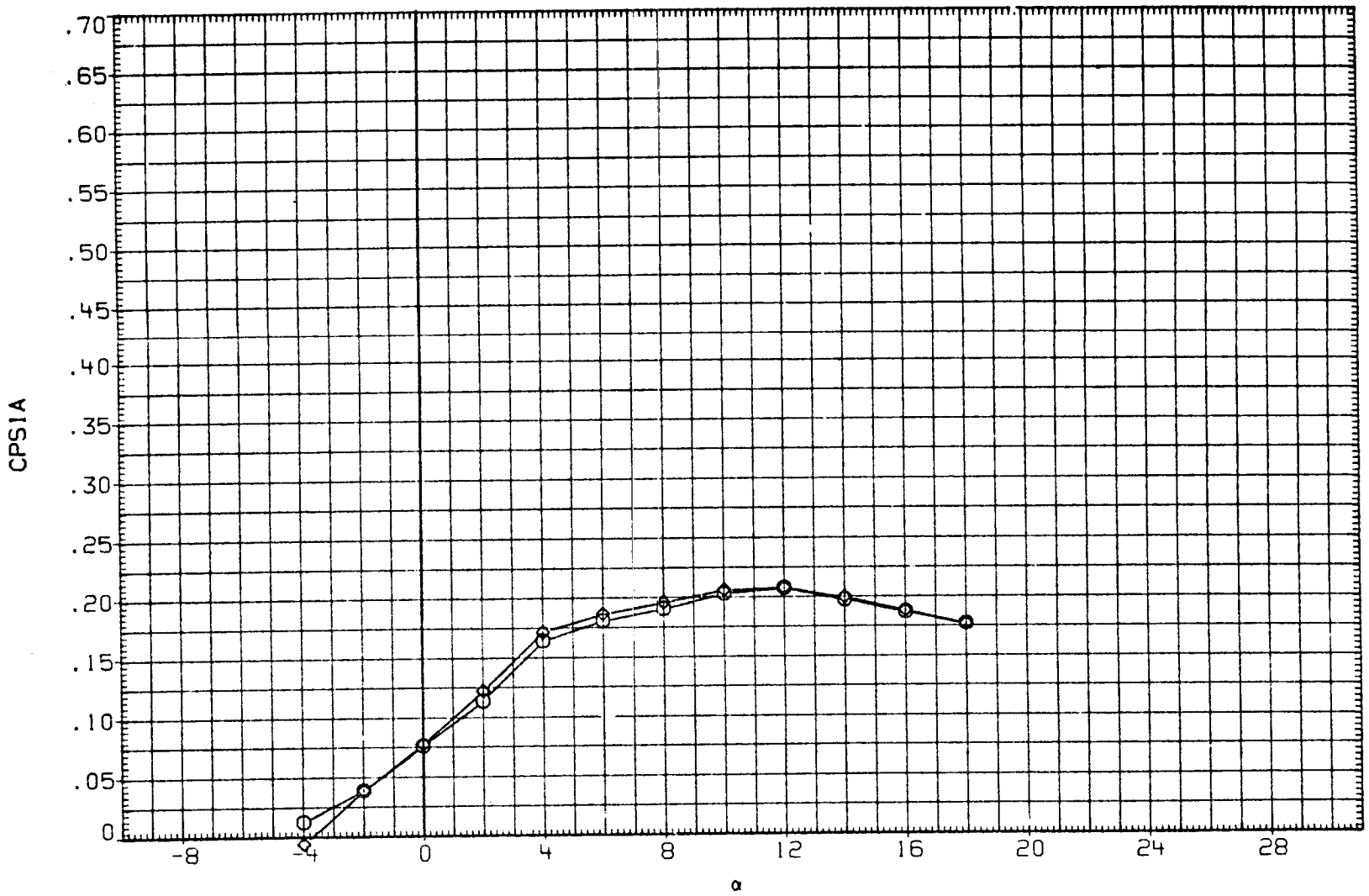


FIG. 15 0A232 SIDE PROBE CPS1A VERSUS ALPHA EFFECT OF FTP
DATA INTERPOLATED WITH MACH,ALPHA, PROBE ON LEFT SIDE

(A)MACH = .60 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION		BETA	PHI
AVR104	○	0A232 AEDC 16T TF431 LFN.1S	RA .2P/S	.000	.000
AVR105	□	0A232 AEDC 16T TF431 LFN.1S	RA .2P/S LOW RN	.000	.000
AVR121	◇	DATA NOT AVAILABLE		.000	.000

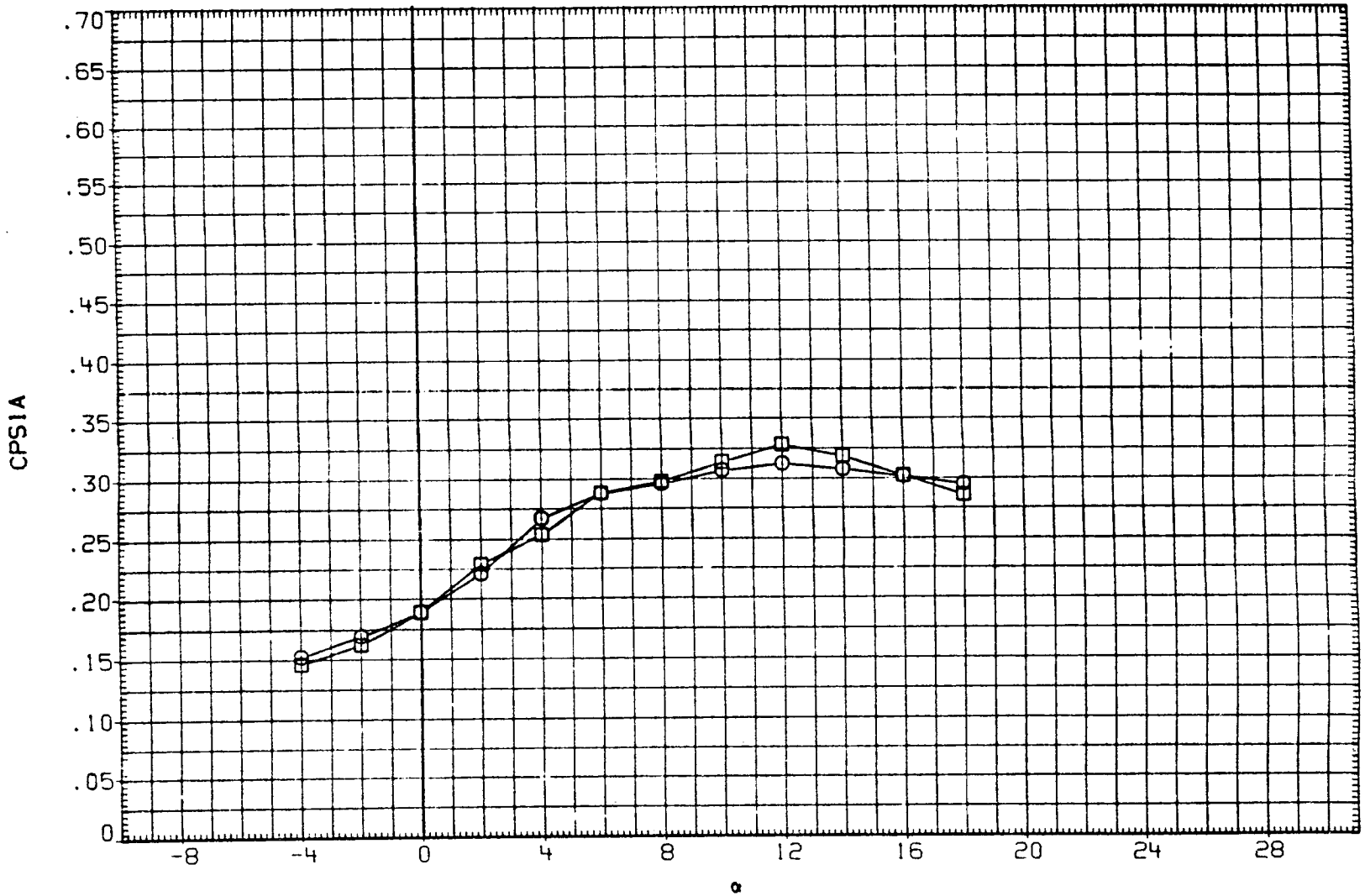


FIG. 15 0A232 SIDE PROBE CPS1A VERSUS ALPHA EFFECT OF FTP
DATA INTERPOLATED WITH MACH, ALPHA, PROBE ON LEFT SIDE

(B)MACH = .90 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION		BETA	PHI
AVR104	○	0A232 AEDC 16T TF431 LFN.1S	RA .2P/S	.000	.000
AVR105	□	0A232 AEDC 16T TF431 LFN.1S	RA .2P/S LOW RN	.000	.000
AVR121	◇	DATA NOT AVAILABLE		.000	.000

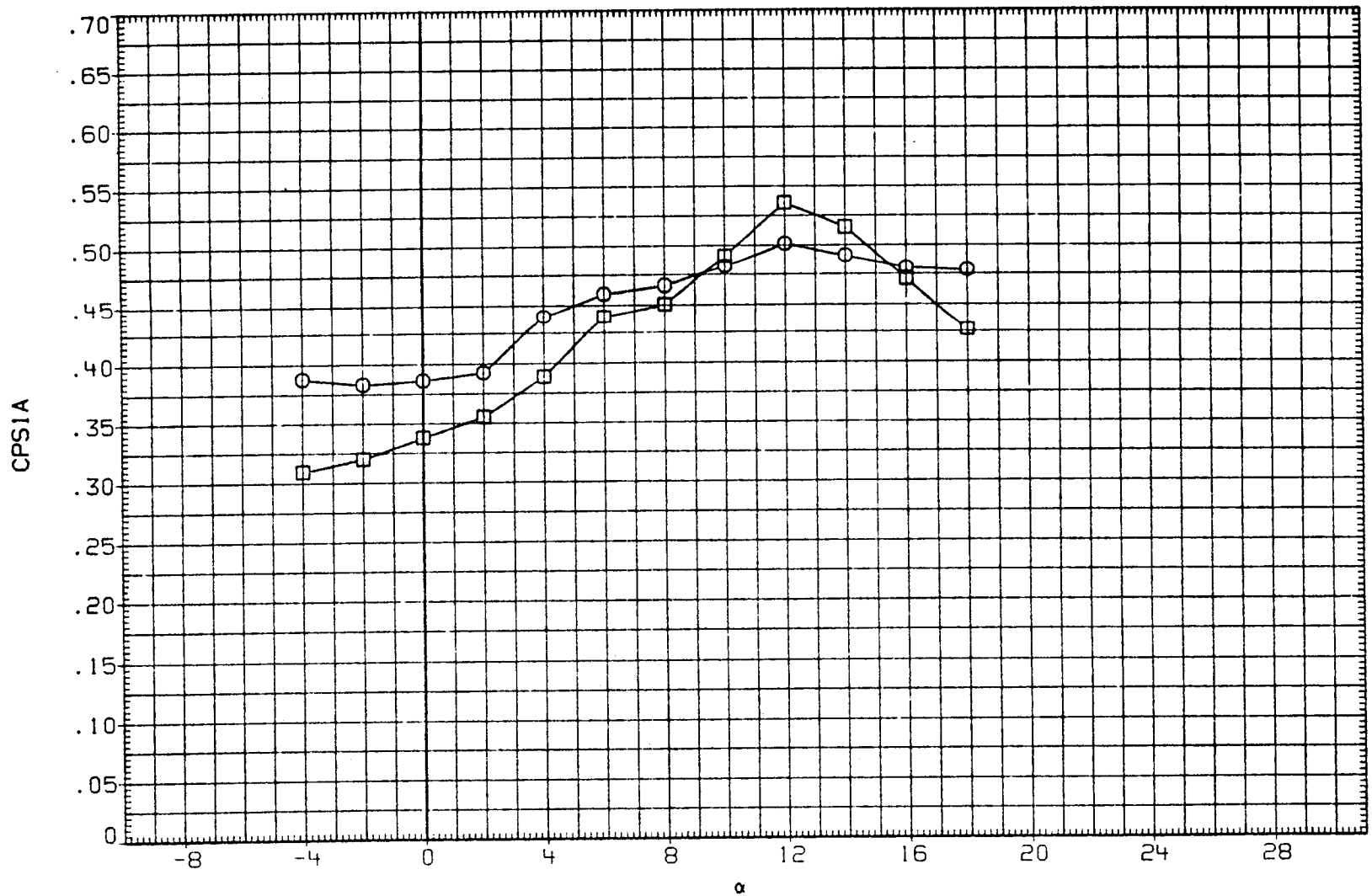


FIG. 15 0A232 SIDE PROBE CPS1A VERSUS ALPHA EFFECT OF FTP
DATA INTERPOLATED WITH MACH, ALPHA, PROBE ON LEFT SIDE

(C)MACH = 1.20 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION		BETA	PHI
AVR104	○	0A232 AEDC 16T TF431 LFN.1S	RA .2P/S	.000	.000
AVR105	□	0A232 AEDC 16T TF431 LFN.1S	RA .2P/S LOW RN	.000	.000
AVR121	◇	DATA NOT AVAILABLE		.000	.000

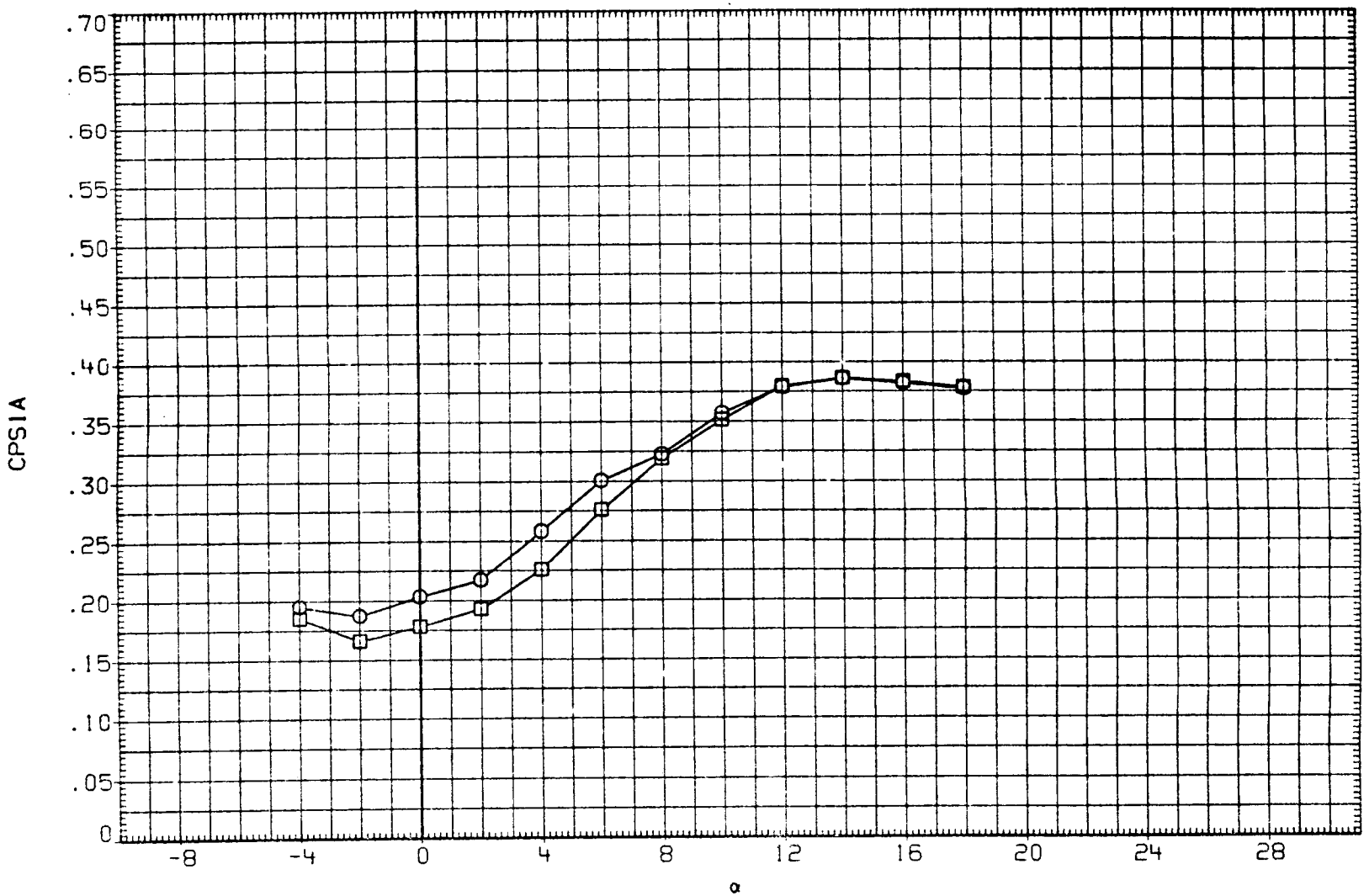


FIG. 15 0A232 SIDE PROBE CPSIA VERSUS ALPHA EFFECT OF FTP
DATA INTERPOLATED WITH MACH, ALPHA, PROBE ON LEFT SIDE

(D)MACH = 1.55 DATE 00 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRB15	○	0A232	AEDC 16T TF431	LA .2A	RFN.1S	2.000	.000
AVRB04	□	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	.000	.000
AVRB14	◇	0A232	AEDC 16T TF431	LA .2A	RFN.1S	.000	.000
AVRB06	△	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	2.000	.000

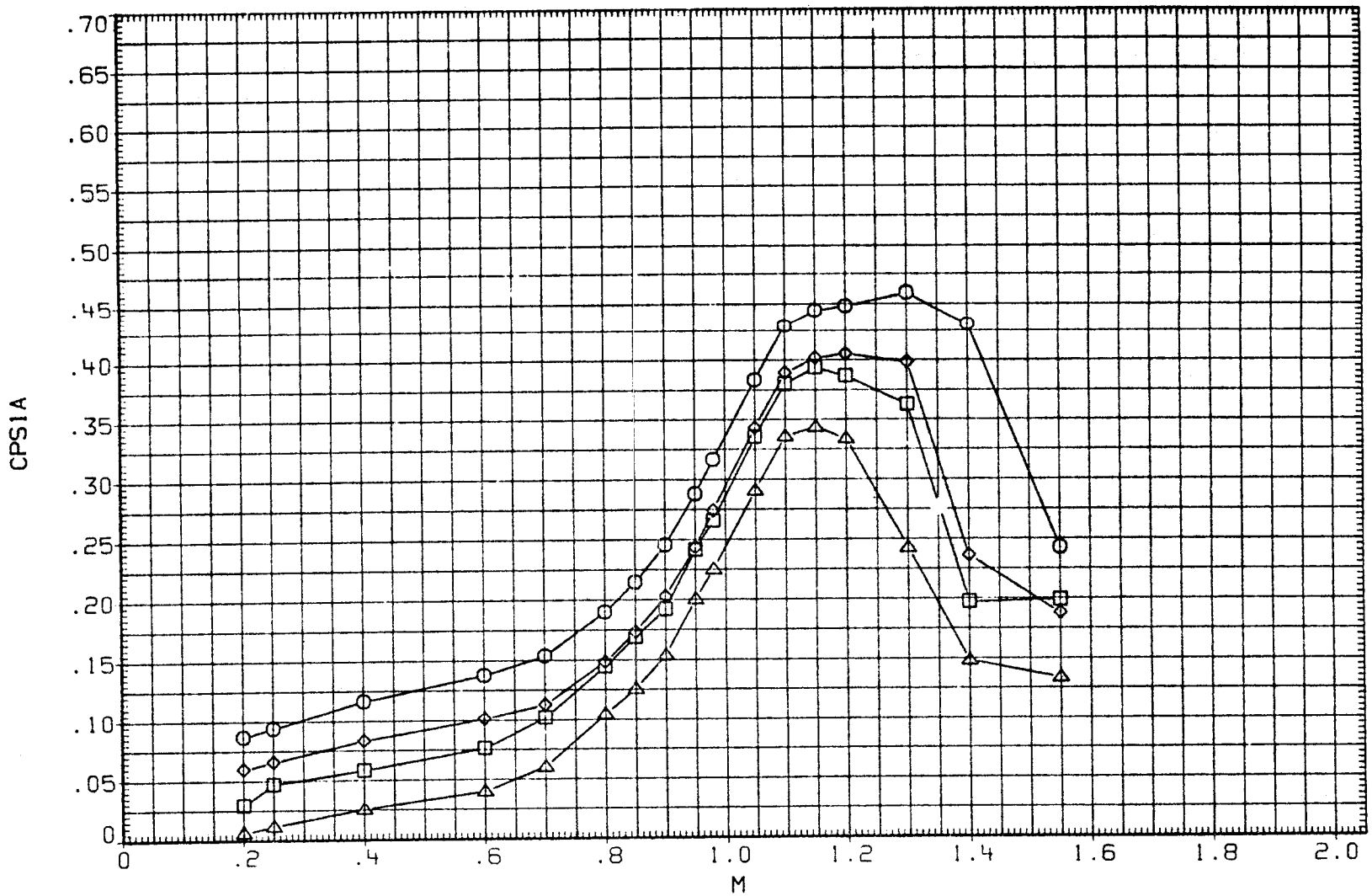


FIG. 16 0A232 SIDE PROBE CPS1A VERSUS MACH NUMBER LEFT,RIGHT SIDES COMPARED
DATA INTERPOLATED WITH MACH,ALPHA,BETA

(A)ALPHA = .00

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVR815	○	0A232	AEDC 16T TF431	LA .2A	RFN.1S	2.000	.000
AVR804	□	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	.000	.000
AVR814	◇	0A232	AEDC 16T TF431	LA .2A	RFN.1S	.000	.000
AVR806	△	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	2.000	.000

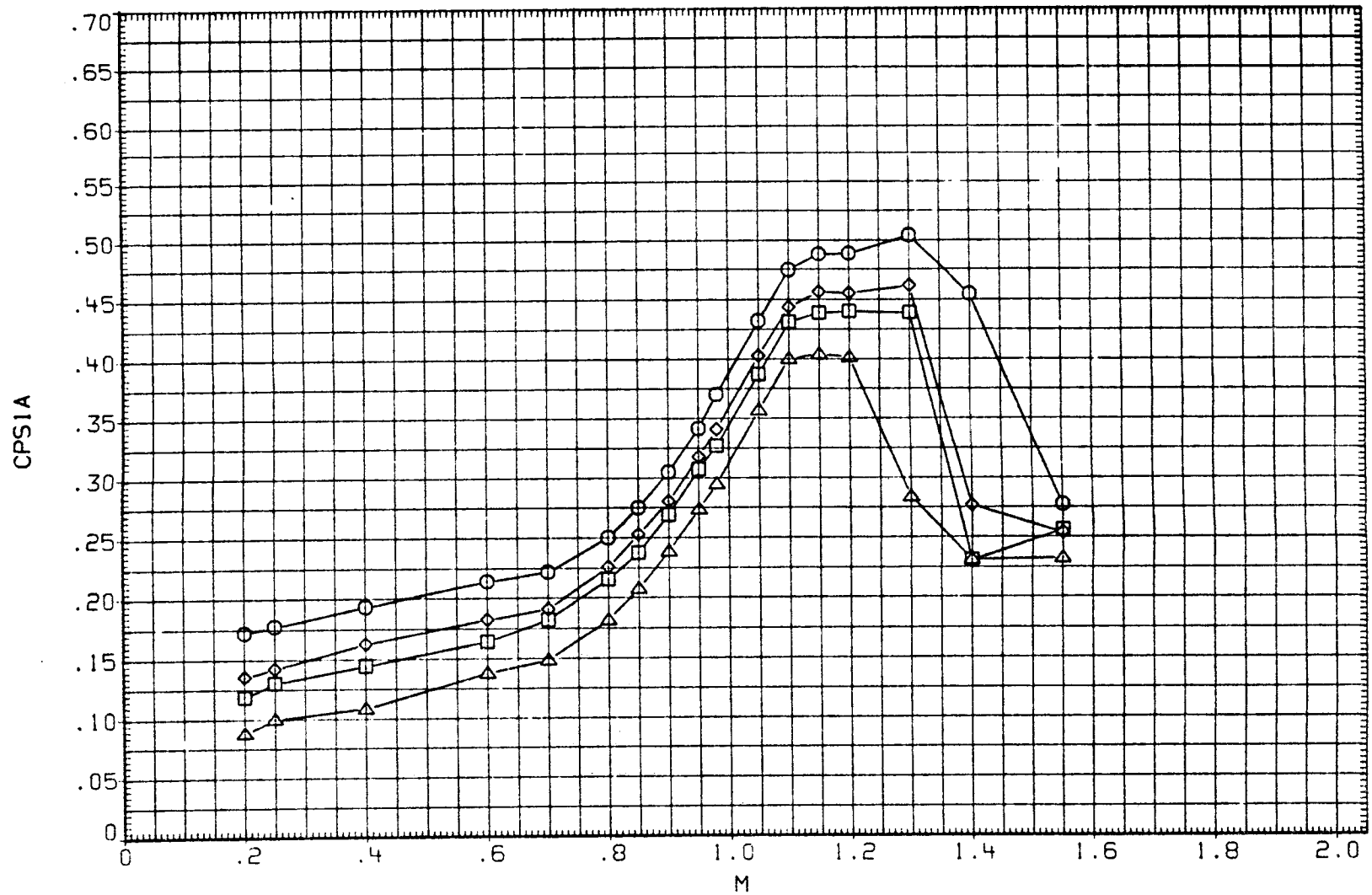


FIG. 16 0A232 SIDE PROBE CPS1A VERSUS MACH NUMBER LEFT,RIGHT SIDES COMPARED
DATA INTERPOLATED WITH MACH,ALPHA,BETA

(B) ALPHA = 4.00

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRB15	○	0A232	AEDC 16T TF431	LA .2A	RFN.1S	2.000	.000
AVRB04	□	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	.000	.000
AVRB14	◇	0A232	AEDC 16T TF431	LA .2A	RFN.1S	.000	.000
AVRB06	△	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	2.000	.000

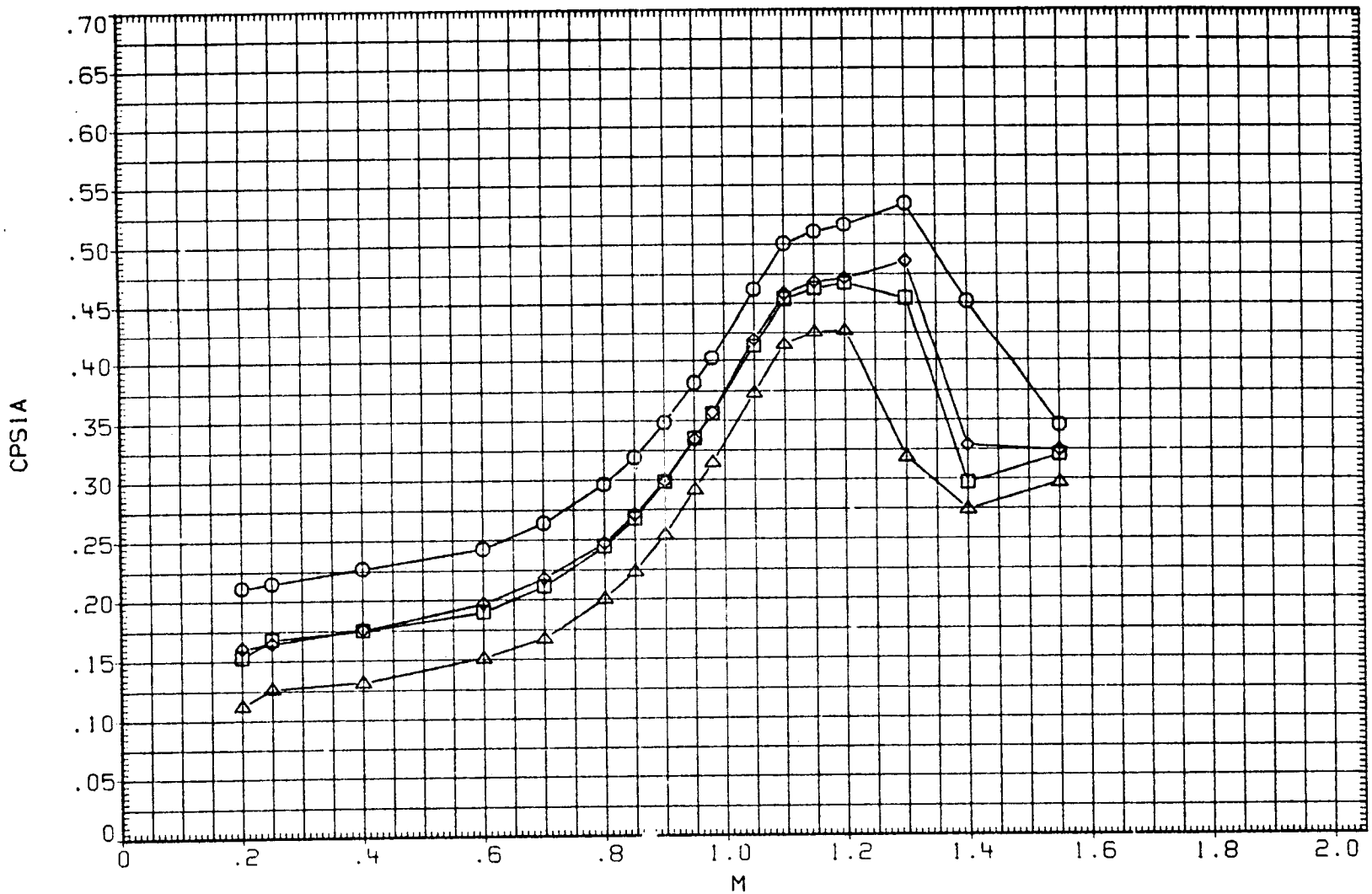


FIG. 16 0A232 SIDE PROBE CPS1A VERSUS MACH NUMBER LEFT,RIGHT SIDES COMPARED
DATA INTERPOLATED WITH MACH,ALPHA,BETA

(C)ALPHA = 8.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVRB15	○	0A232	AEDC 16T TF431	LA .2A		RFN.1S	2.000	.000
AVRB04	□	0A232	AEDC 16T TF431	LFN.1S		RA .2P/S	.000	.000
AVRB14	◇	0A232	AEDC 16T TF431	LA .2A		RFN.1S	.000	.000
AVRB06	△	0A232	AEDC 16T TF431	LFN.1S		RA .2P/S	2.000	.000

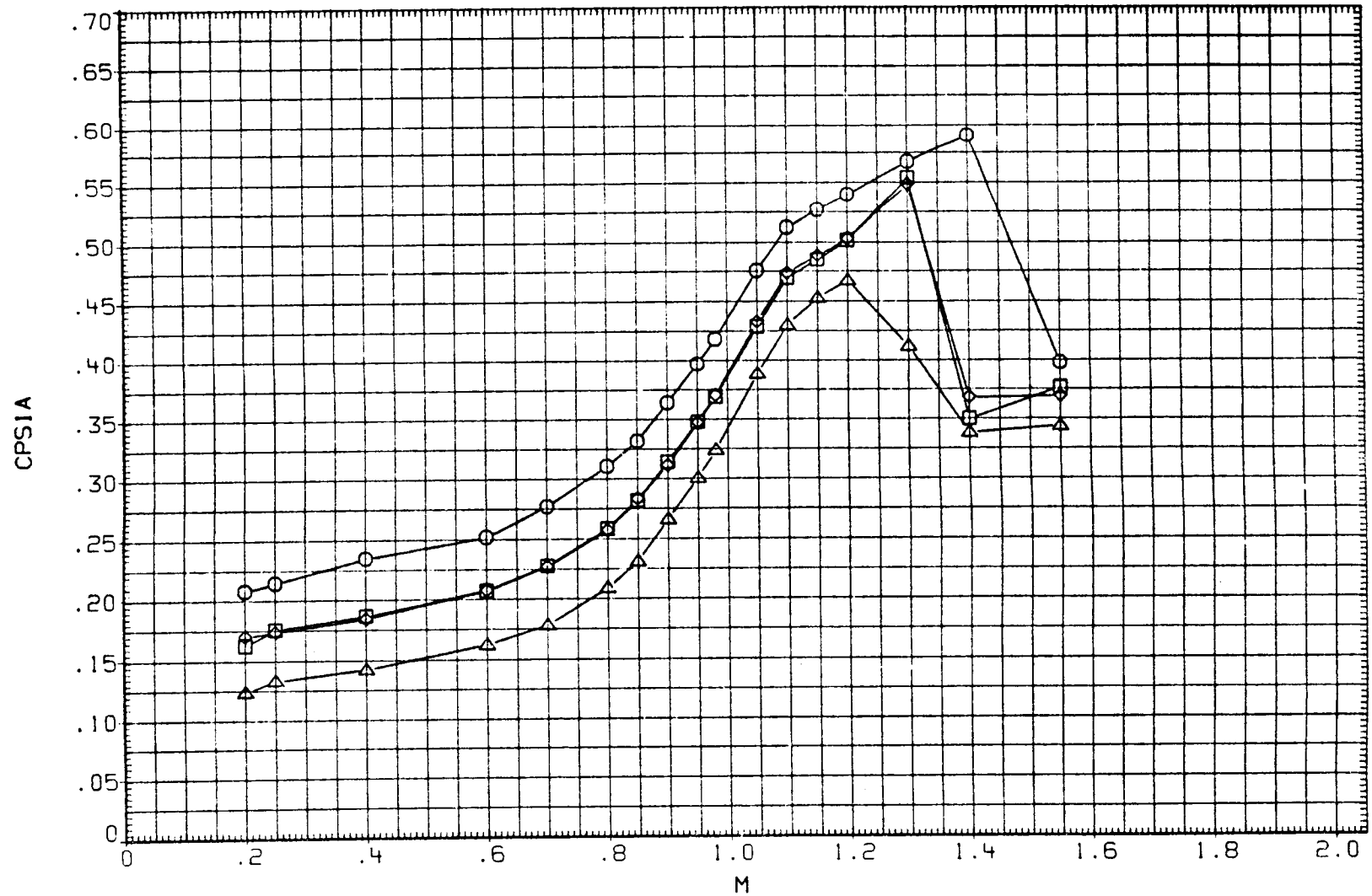


FIG. 16 0A232 SIDE PROBE CPSIA VERSUS MACH NUMBER LEFT,RIGHT SIDES COMPARED
DATA INTERPOLATED WITH MACH,ALPHA,BETA

(D) ALPHA = 12.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVRB15	○	0A232	AEDC 16T TF431	LA .2A	RFN.1S		2.000	.000
AVRB04	□	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S		.000	.000
AVRB14	◇	0A232	AEDC 16T TF431	LA .2A	RFN.1S		.000	.000
AVRB06	△	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S		2.000	.000

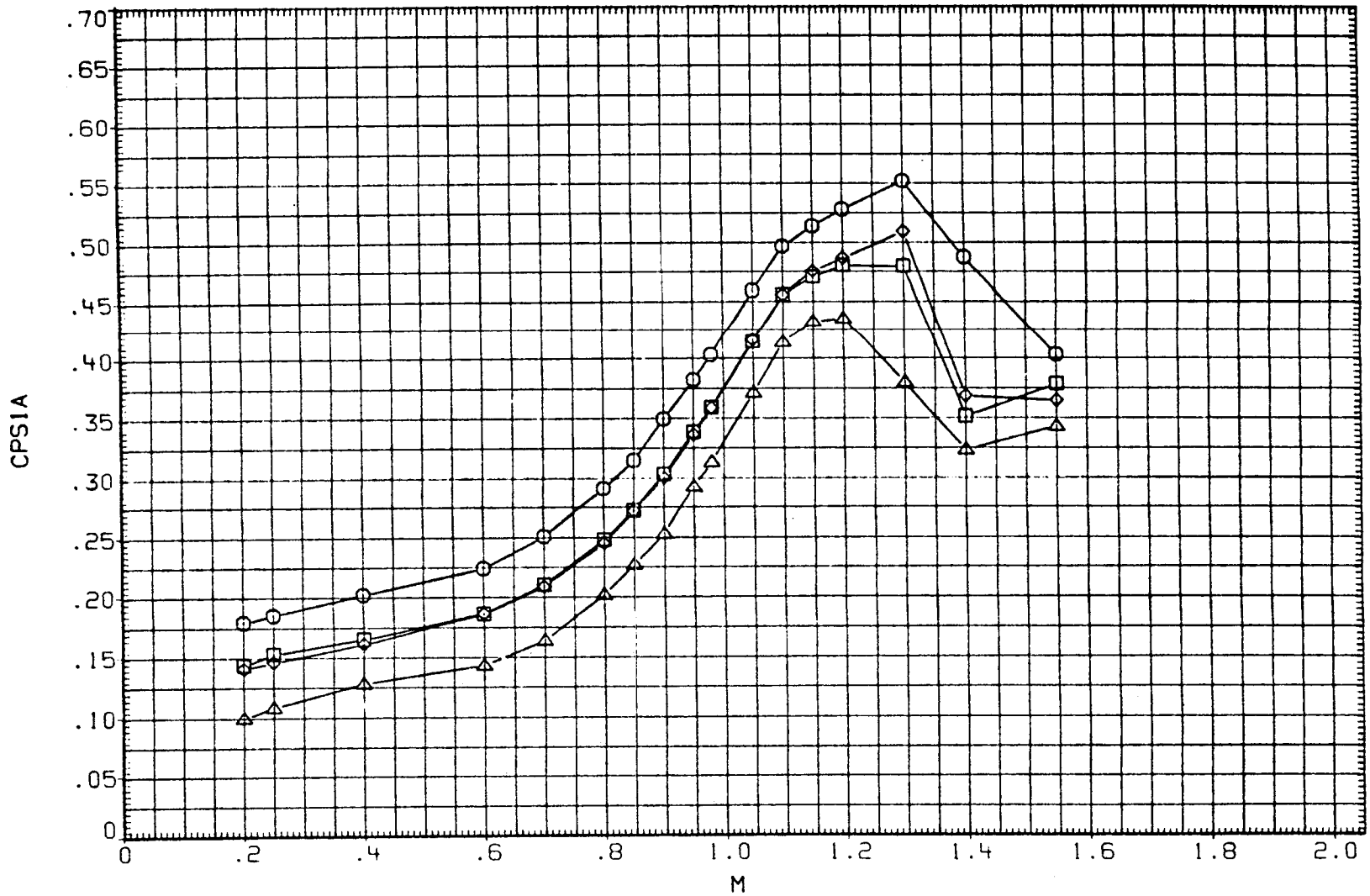


FIG. 16 0A232 SIDE PROBE CPS1A VERSUS MACH NUMBER LEFT,RIGHT SIDES COMPARED
DATA INTERPOLATED WITH MACH,ALPHA,BETA

(E)ALPHA = 16.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVRB15	○	OA232	AEDC 16T TF431	LA .2A	RFN.1S		2.000	.000
AVRB04	□	OA232	AEDC 16T TF431	LFN.1S	RA .2P/S		.000	.000
AVRB14	◇	OA232	AEDC 16T TF431	LA .2A	RFN.1S		.000	.000
AVRB06	△	OA232	AEDC 16T TF431	LFN.1S	RA .2P/S		2.000	.000

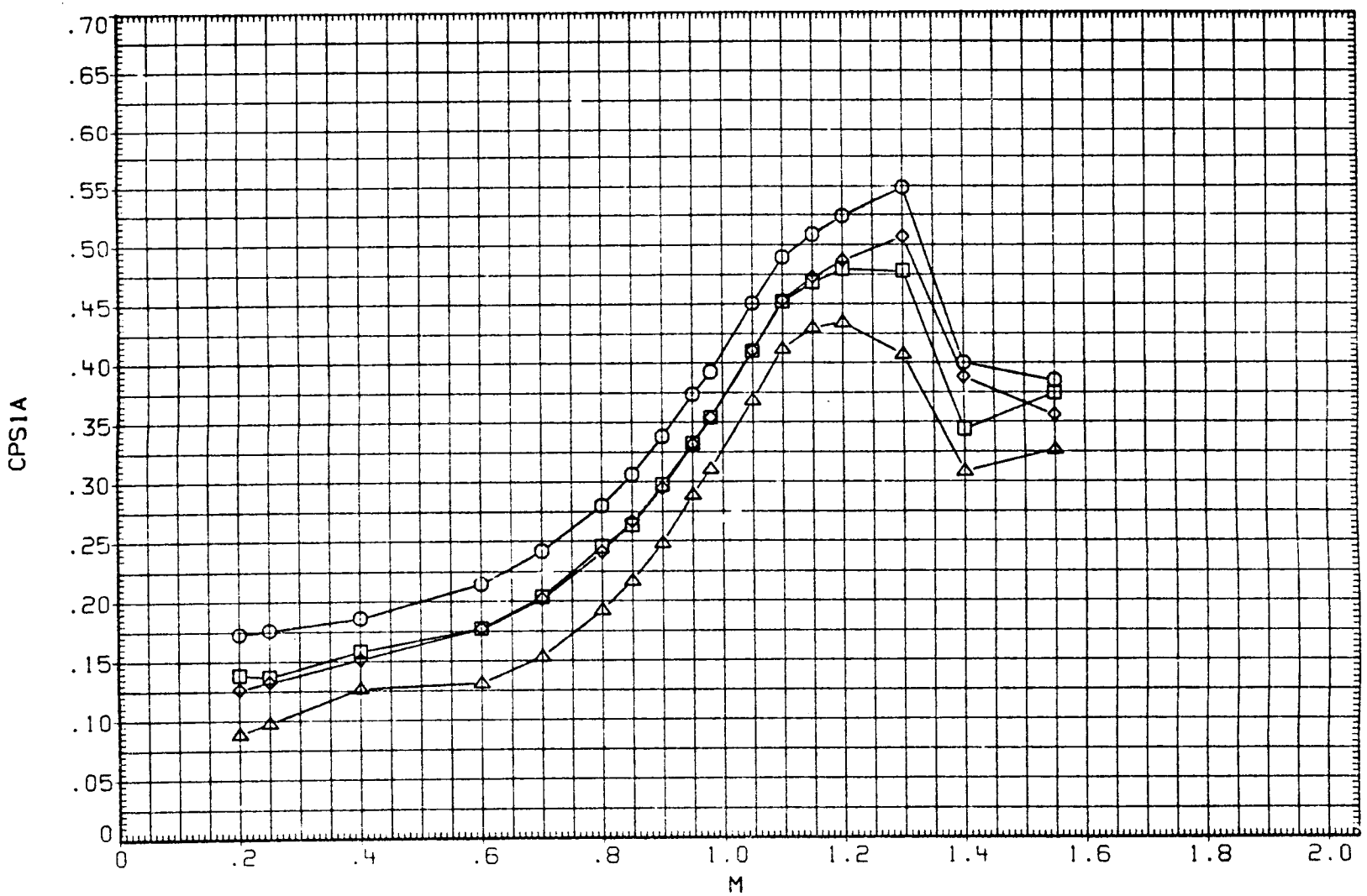


FIG. 16 OA232 SIDE PROBE CPS1A VERSUS MACH NUMBER LEFT,RIGHT SIDES COMPARED
DATA INTERPOLATED WITH MACH,ALPHA,BETA

(F)ALPHA = 18.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB12	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

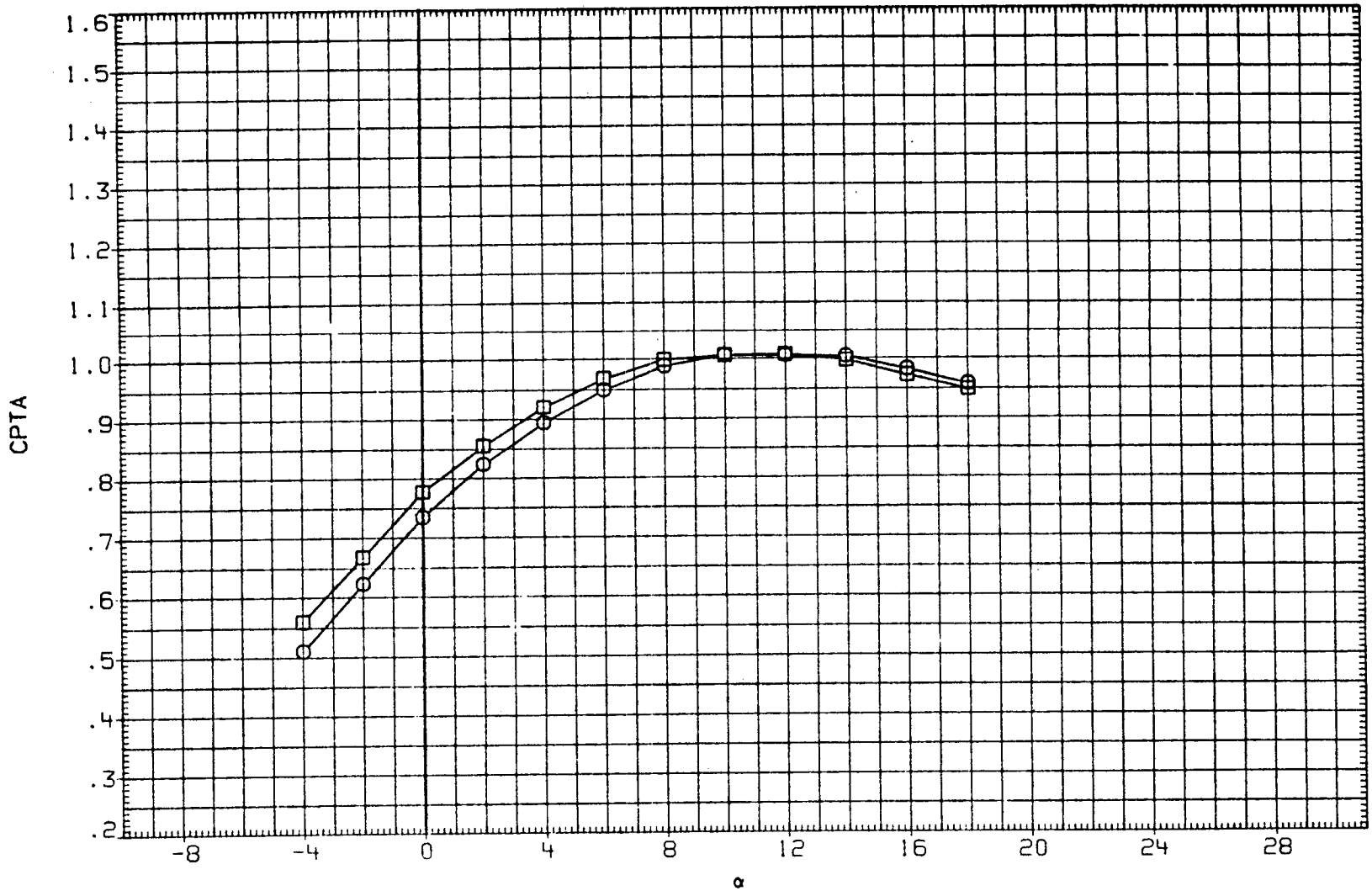


FIG. 17 0A232 SIDE PROBE CPTA VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON LEFT SIDE

(A)MACH = .20 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB12	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

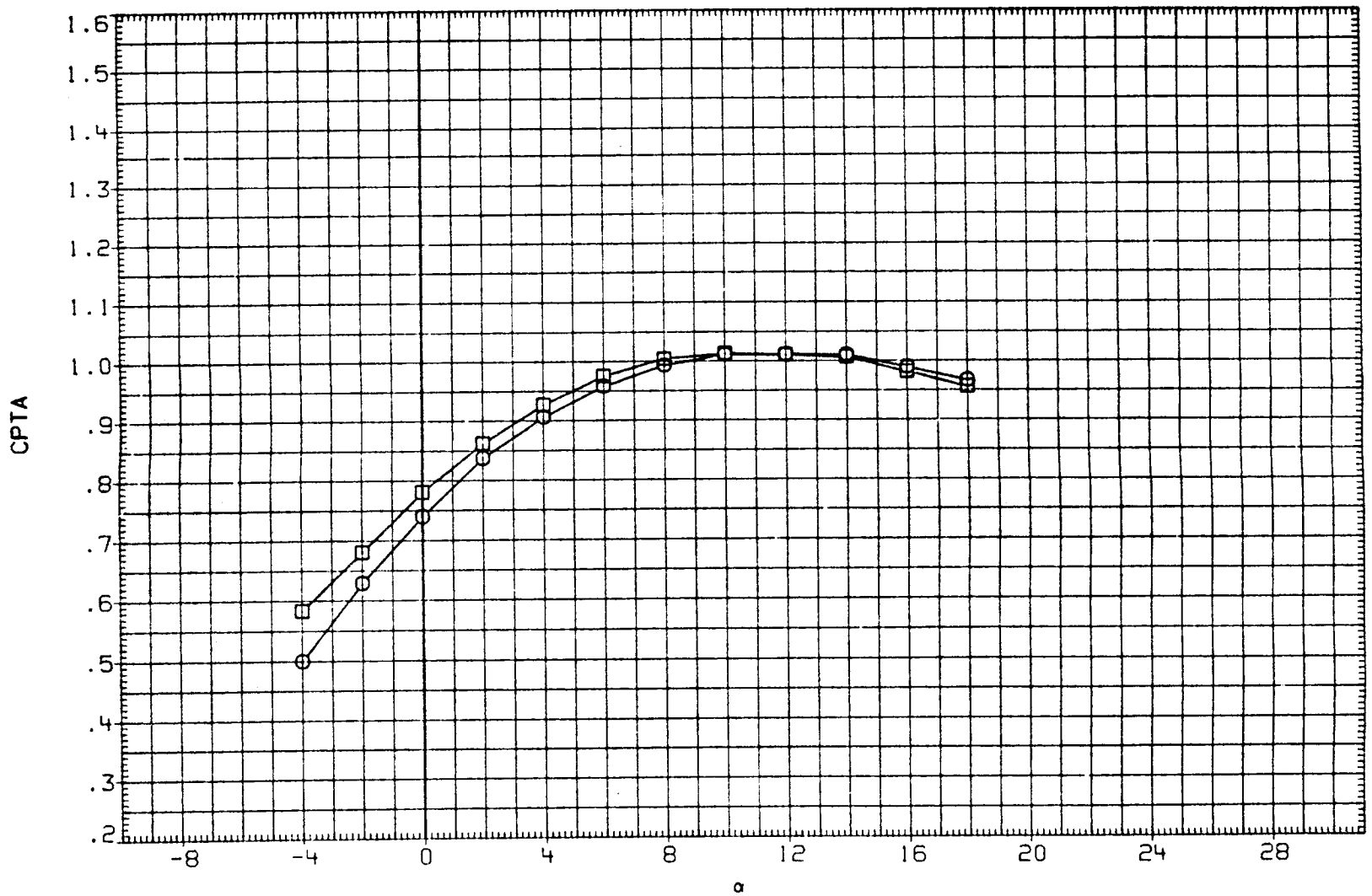


FIG. 17 0A232 SIDE PROBE CPTA VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON LEFT SIDE

(B)MACH = .25 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB12	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

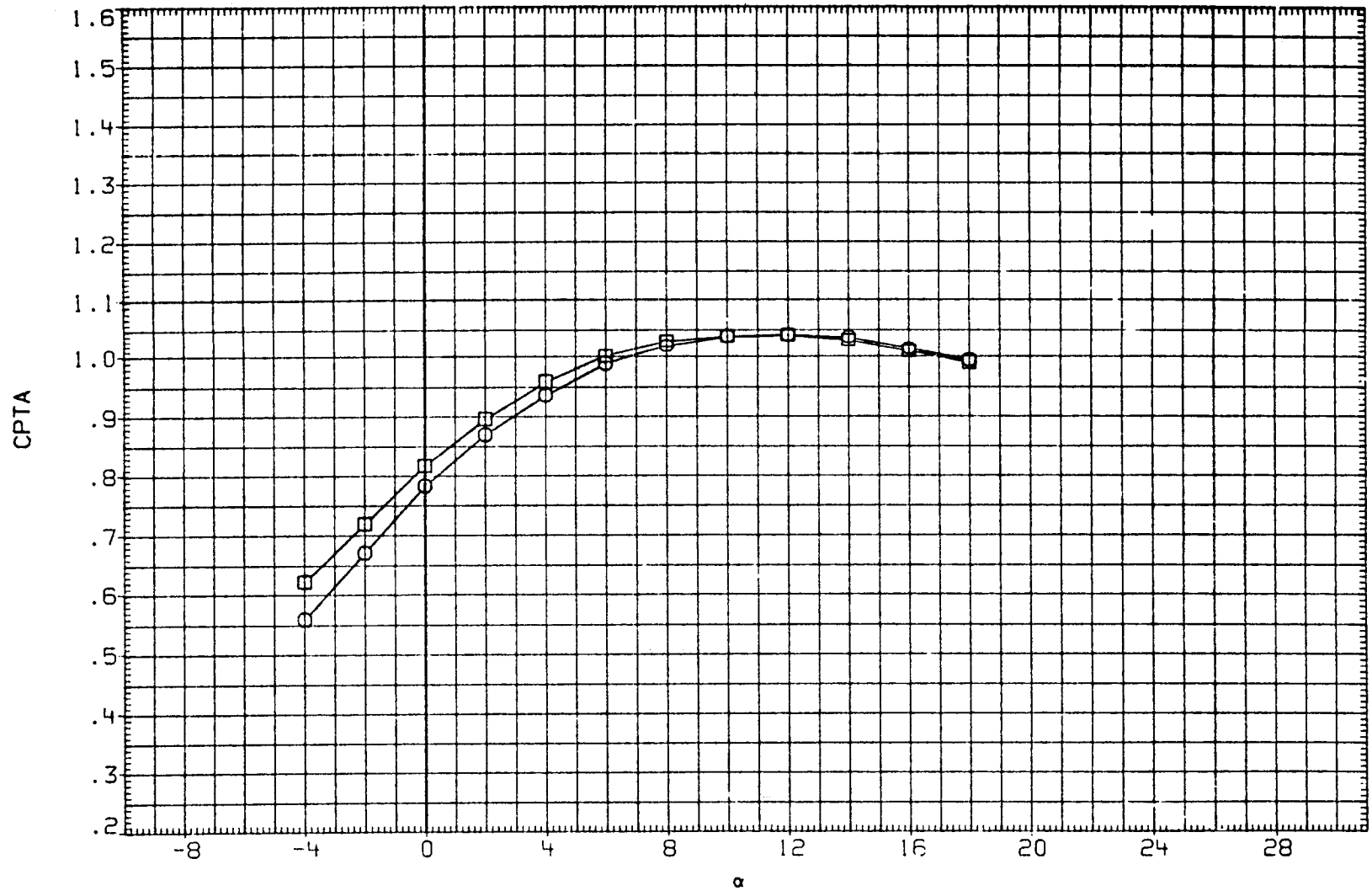


FIG. 17 0A232 SIDE PROBE CPTA VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON LEFT SIDE

(C)MACH = .40 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB12	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

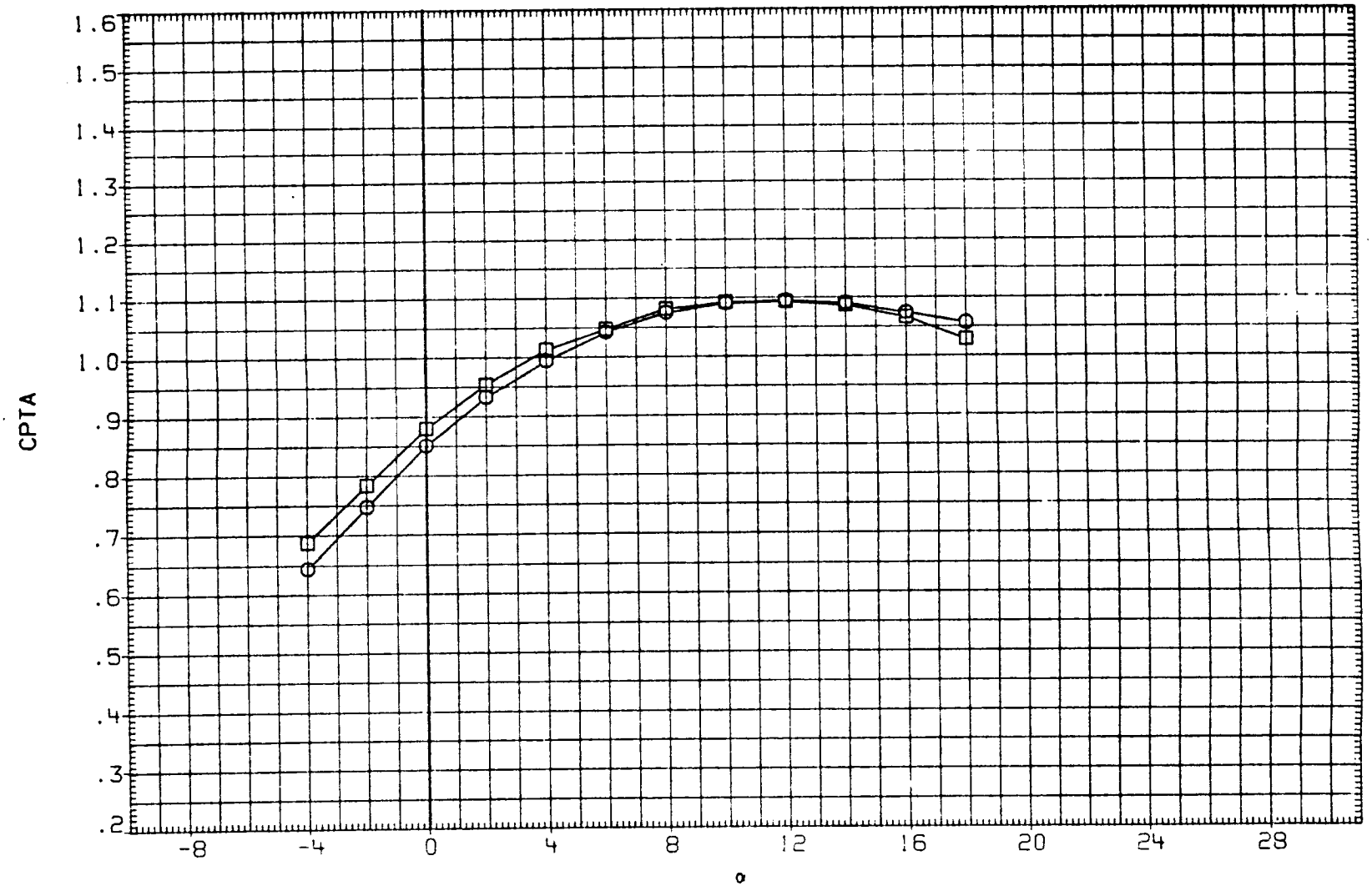


FIG. 17 0A232 SIDE PROBE CPTA VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON LEFT SIDE

(D)MACH = .60 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB12	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

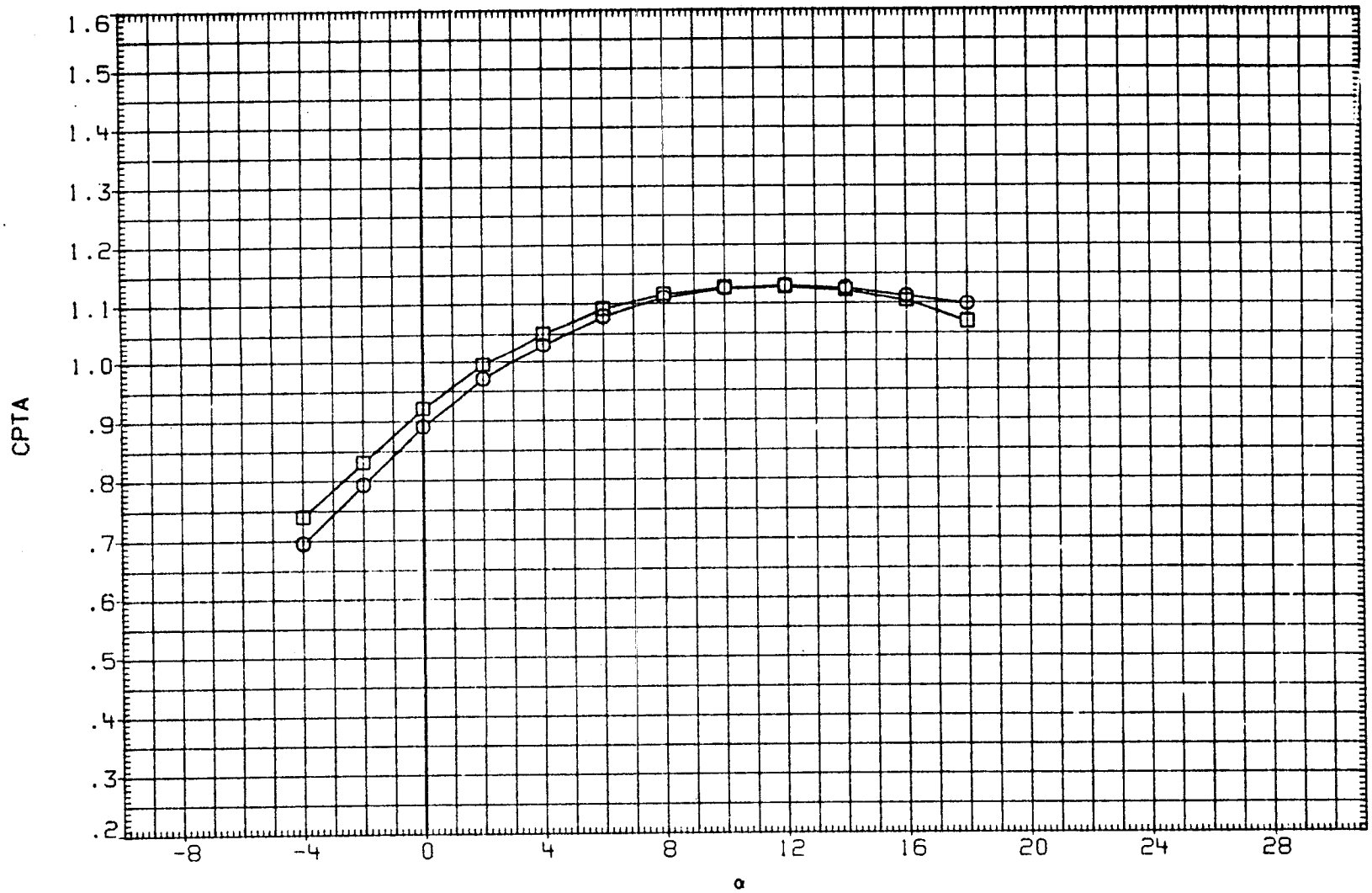


FIG. 17 0A232 SIDE PROBE CPTA VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON LEFT SIDE

(E)MACH = .70 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB12	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

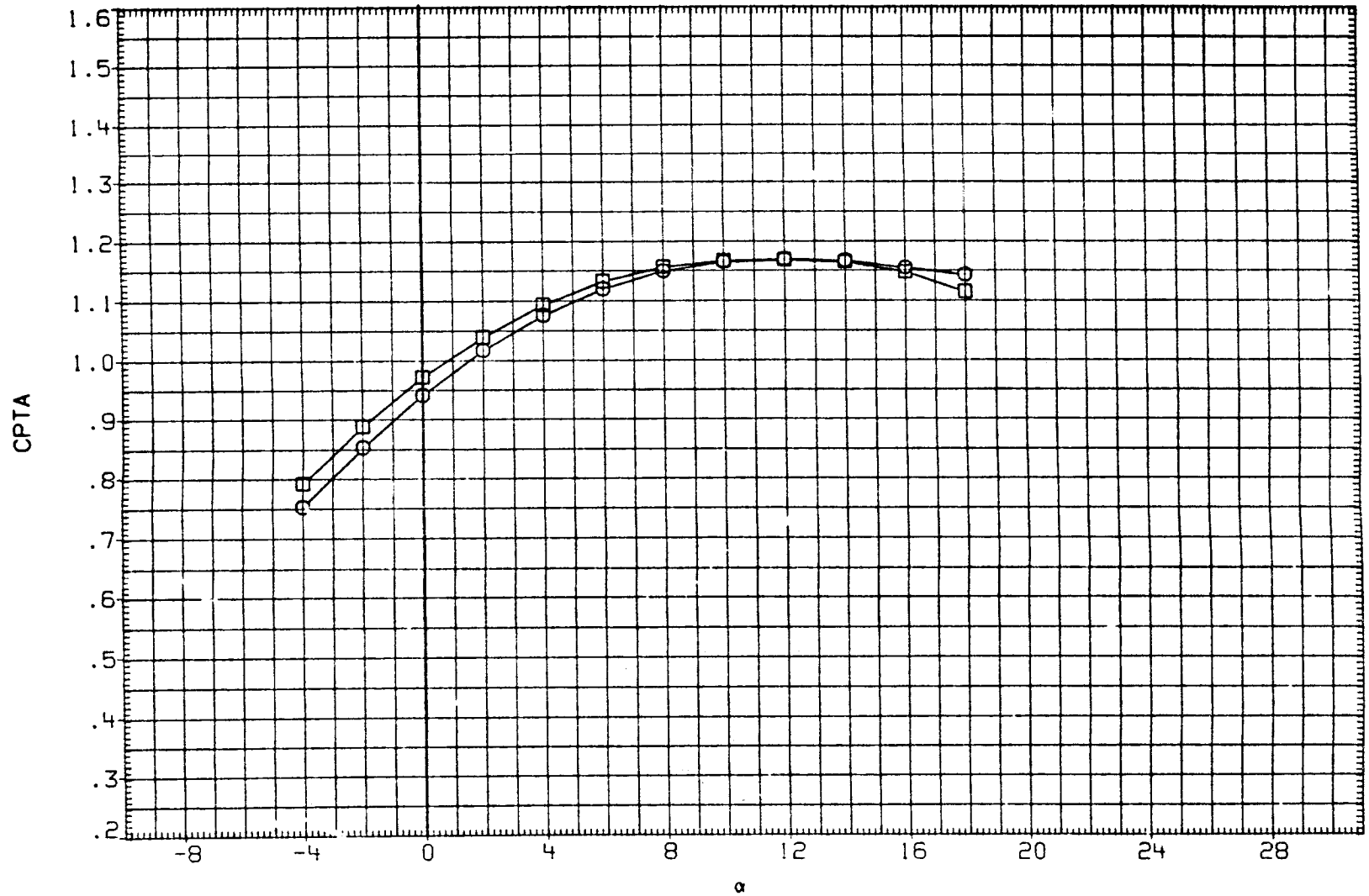


FIG. 17 0A232 SIDE PROBE CPTA VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON LEFT SIDE

(F)MACH = .80 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB12	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

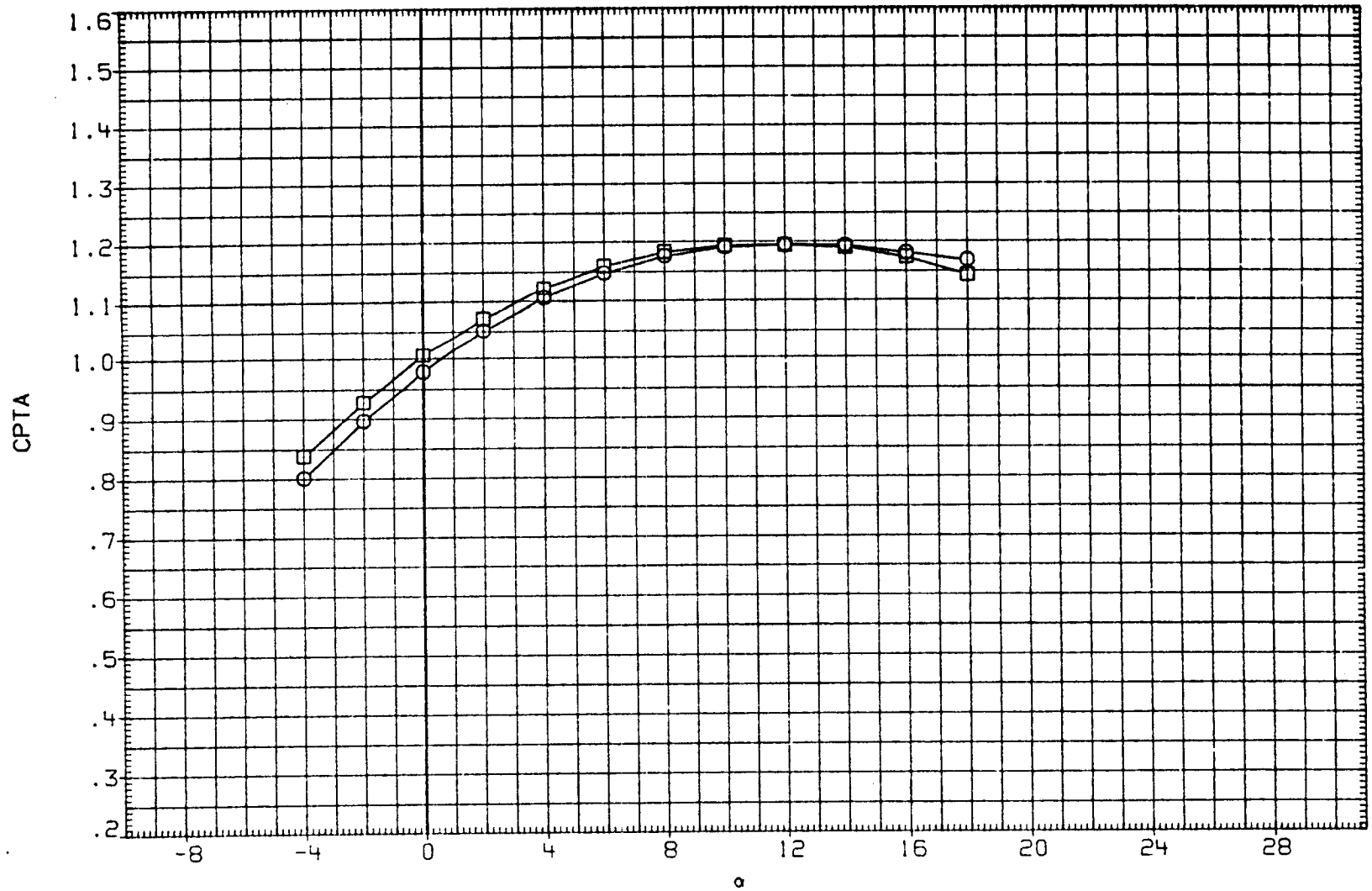


FIG. 17 0A232 SIDE PROBE CPTA VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON LEFT SIDE

(G)MACH = .85 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB12	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

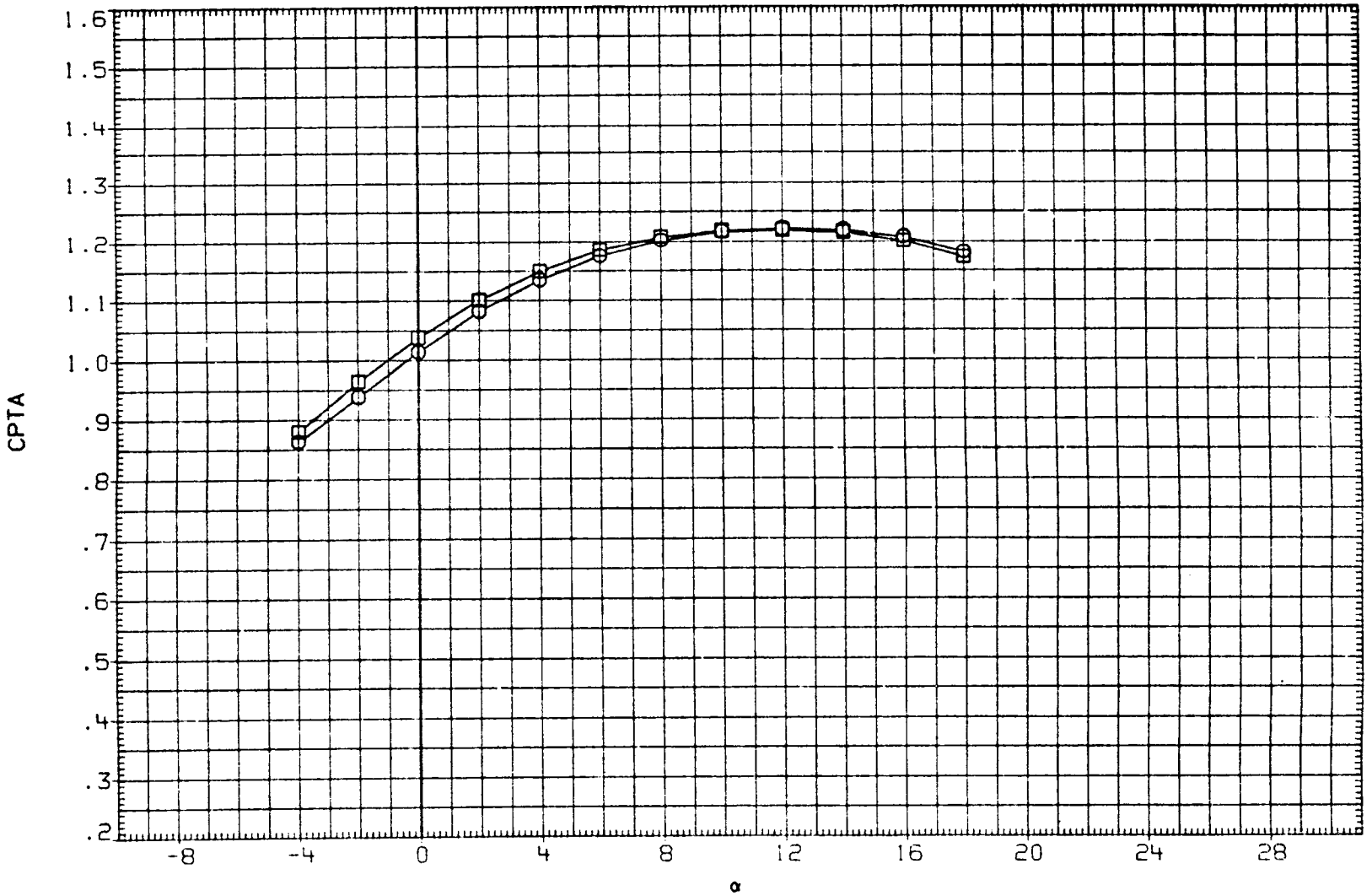


FIG. 17 0A232 SIDE PROBE CPTA VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON LEFT SIDE

(H)MACH = .90 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB12	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

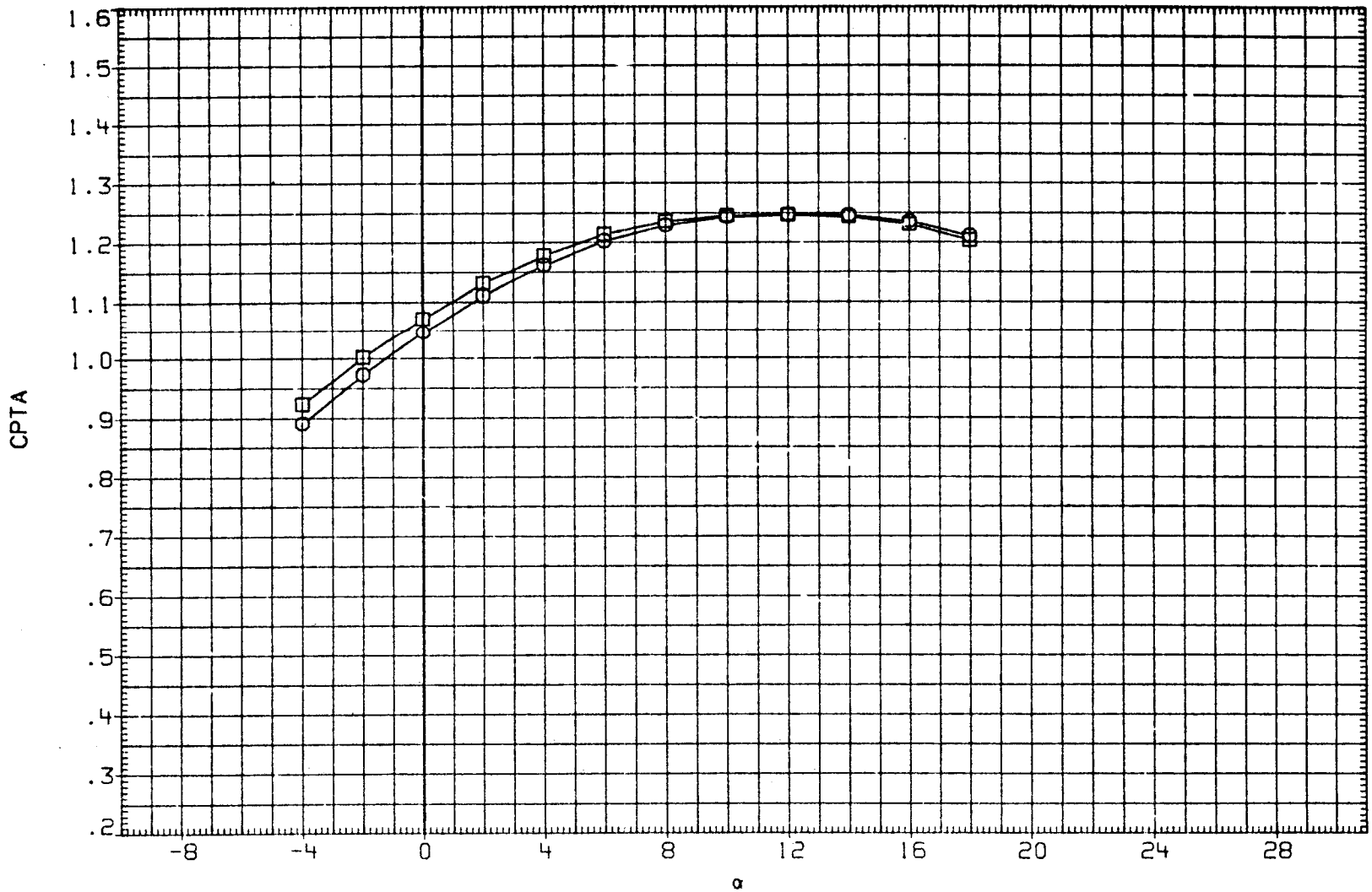


FIG. 17 0A232 SIDE PROBE CPTA VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON LEFT SIDE

(I)MACH = .95 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB12	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

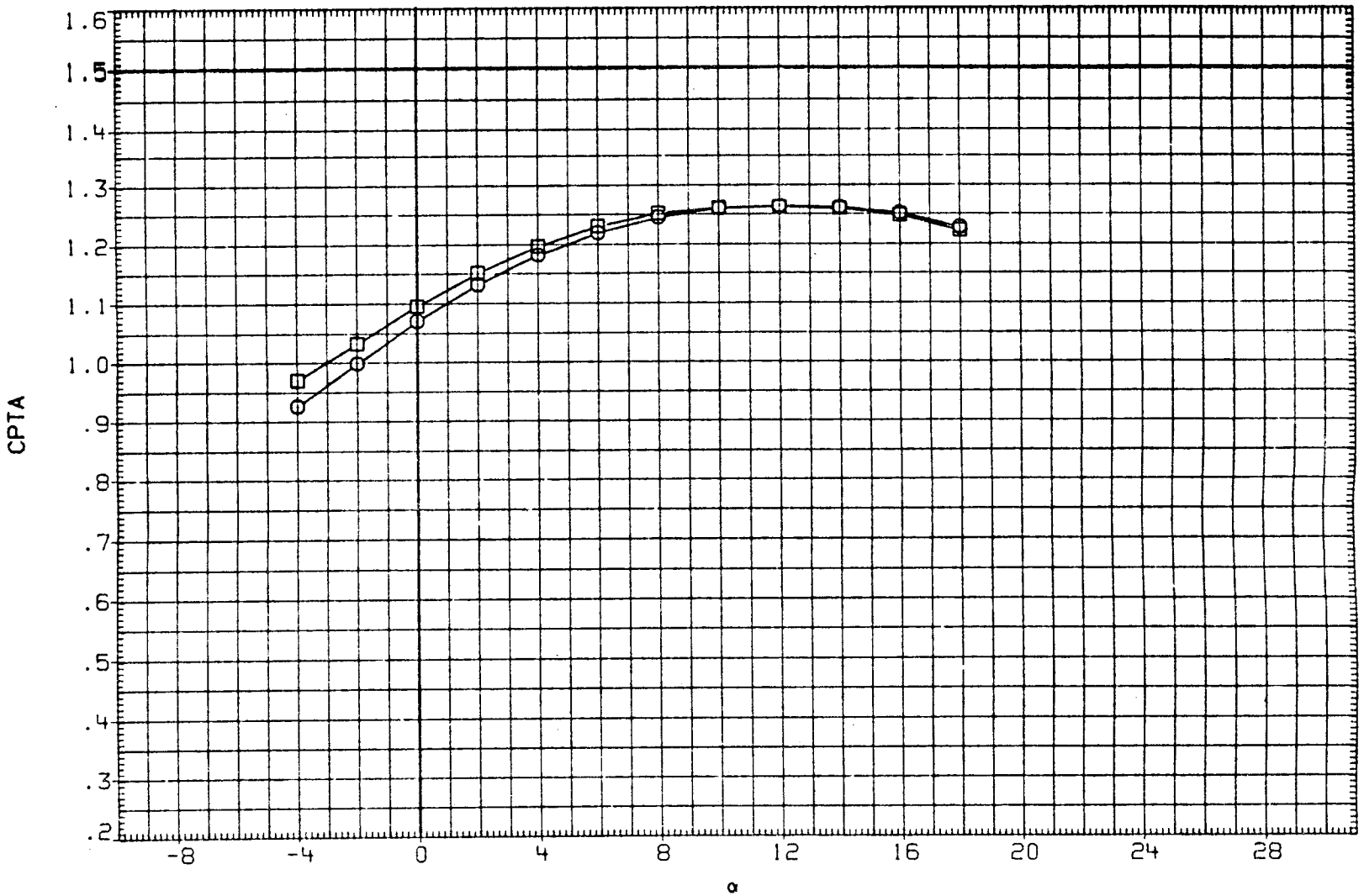


FIG. 17 0A232 SIDE PROBE CPTA VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON LEFT SIDE

(J) MACH = .98 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB12	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

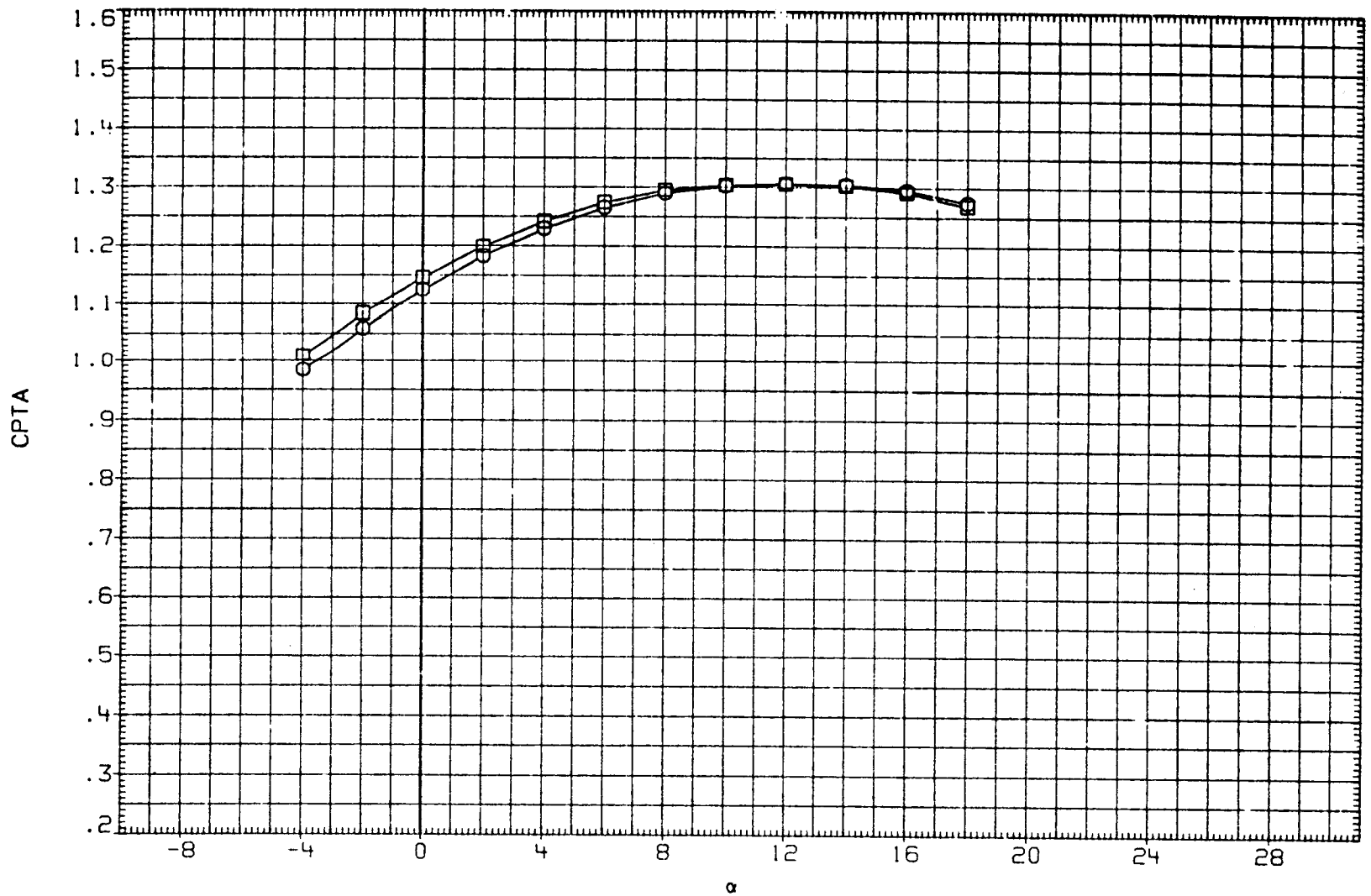


FIG. 17 0A232 SIDE PROBE CPTA VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON LEFT SIDE

(K)MACH = 1.05 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB12	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

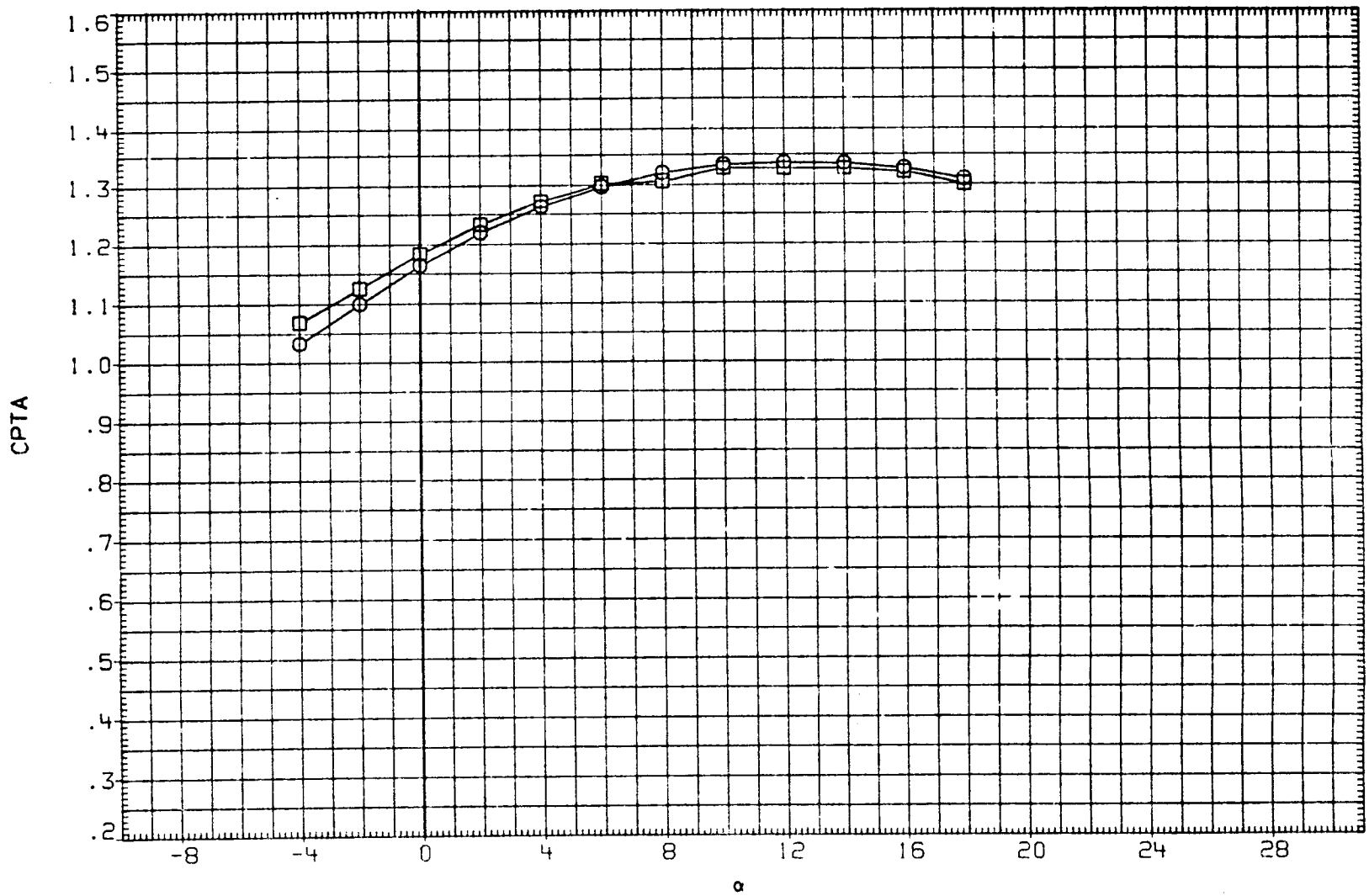


FIG. 17 0A232 SIDE PROBE CPTA VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON LEFT SIDE

(L)MACH = 1.10 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB12	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

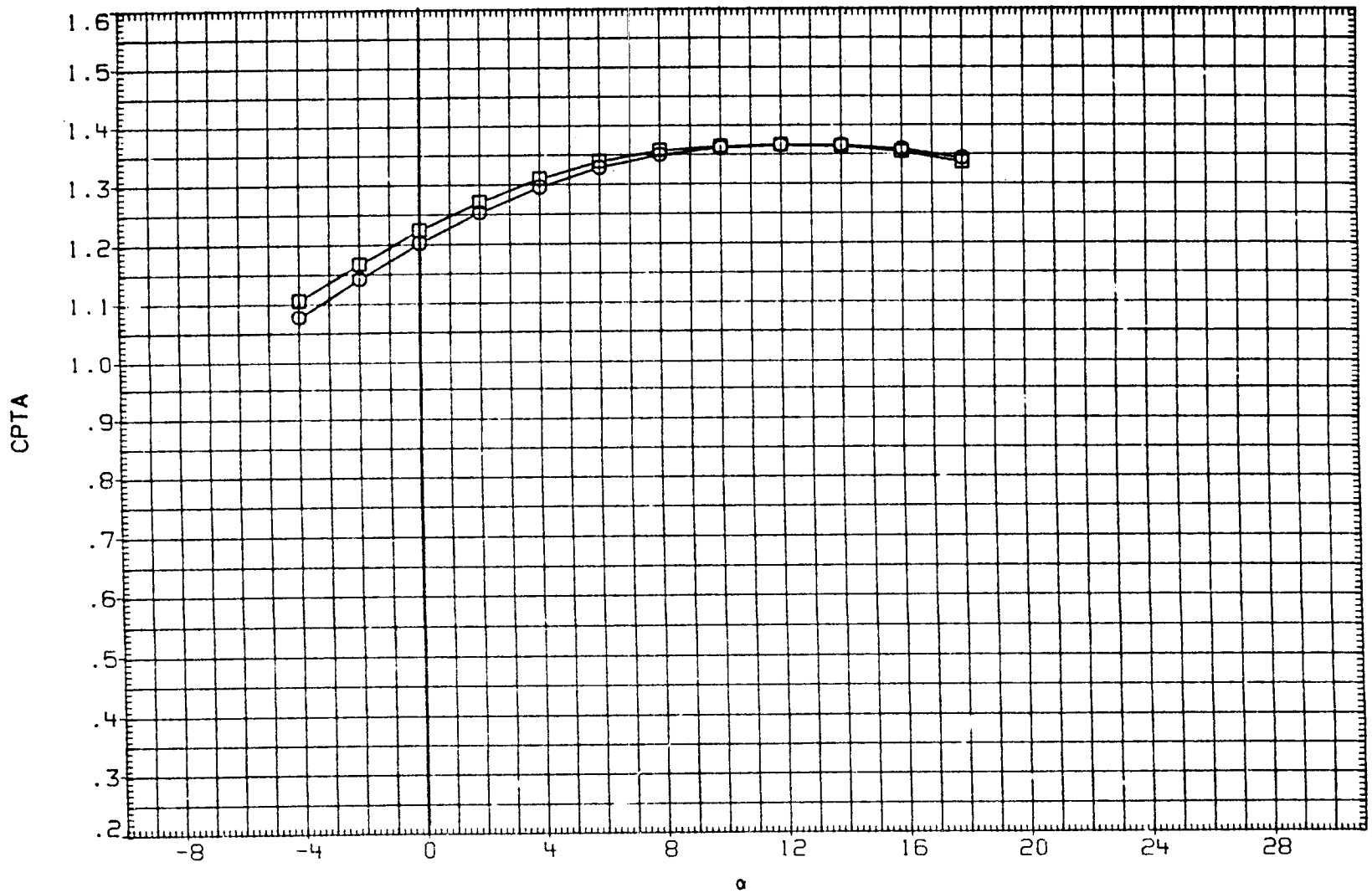


FIG. 17 0A232 SIDE PROBE CPTA VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON LEFT SIDE

(M)MACH = 1.15 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB12	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

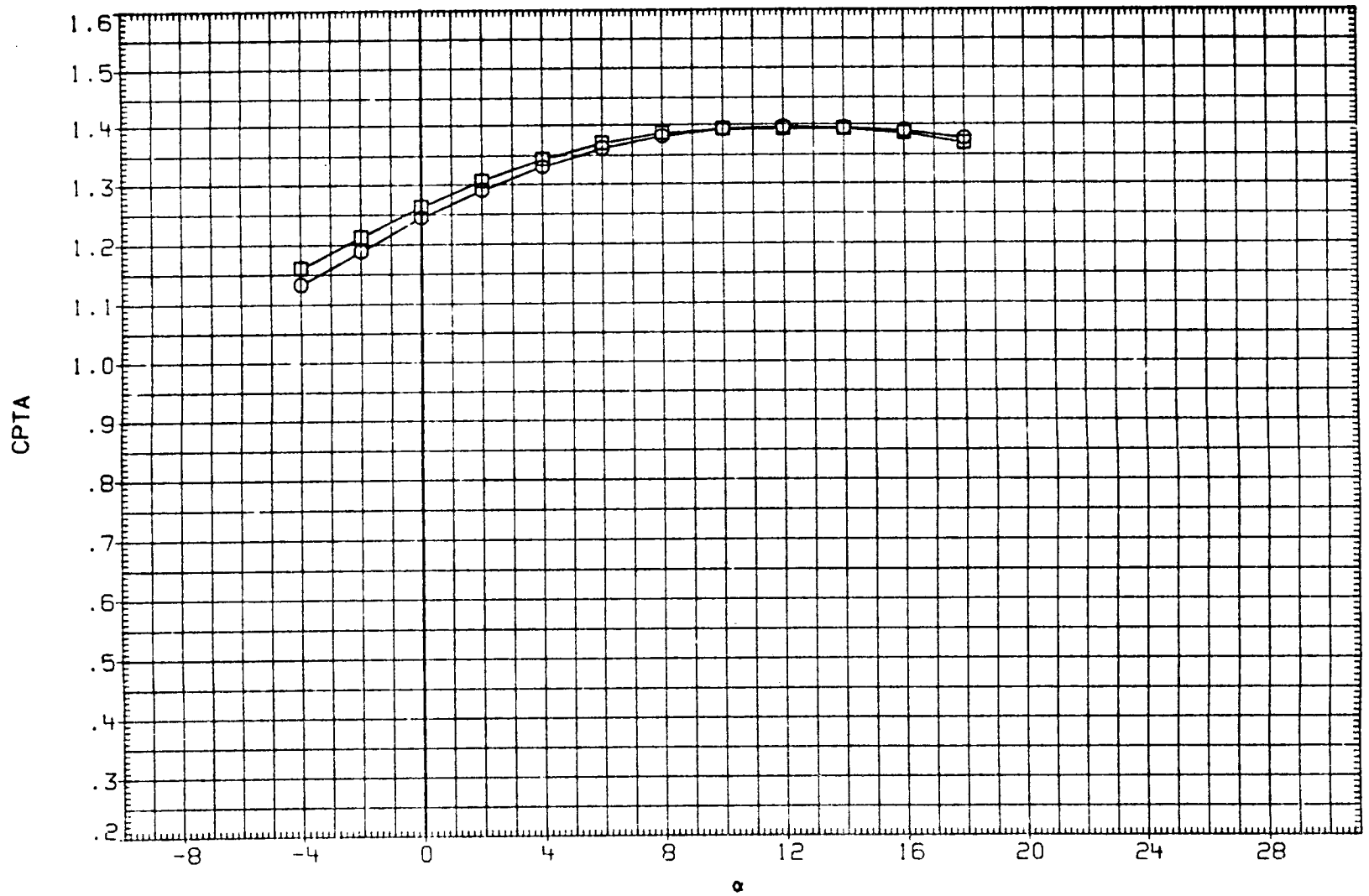


FIG. 17 0A232 SIDE PROBE CPTA VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON LEFT SIDE

(N)MACH = 1.20 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION			BETA	PHI
RVR045	○	0A232	RFN.1S AND	RA.2P/S SIDE PROBES COMBINED	2.000	.000
LVR044	□	0A232	LFN.1S AND	LA.2P/S SIDE PROBES COMBINED	.000	.000
RVR044	◇	0A232	RFN.1S AND	RA.2P/S SIDE PROBES COMBINED	.000	.000
LVR046	△	0A232	LFN.1S AND	LA.2P/S SIDE PROBES COMBINED	2.000	.000

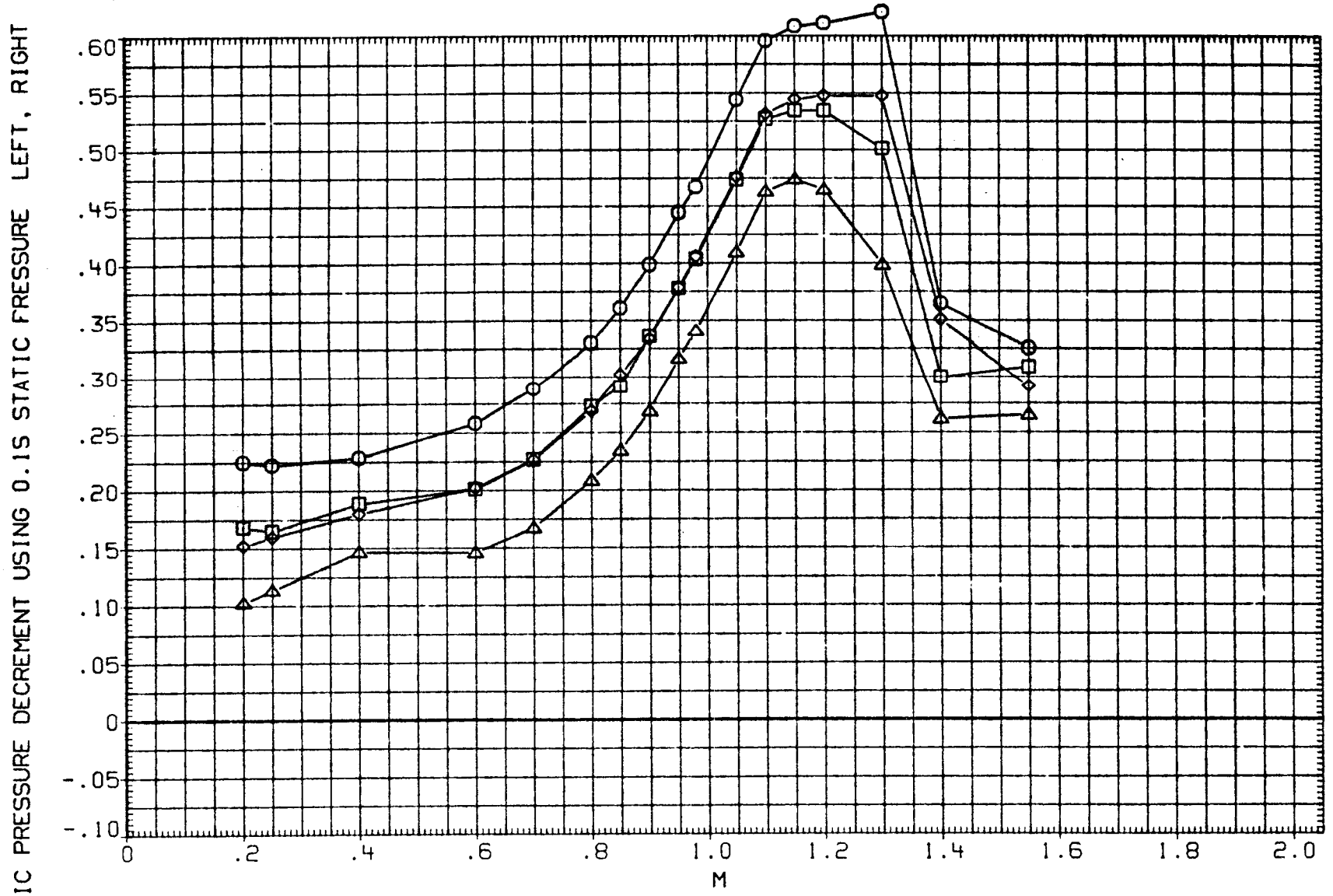


FIG. 58 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS MACH NUMBER
LEFT AND RIGHT SIDES COMPARED

(F) ALPHA = 18.00 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB12	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

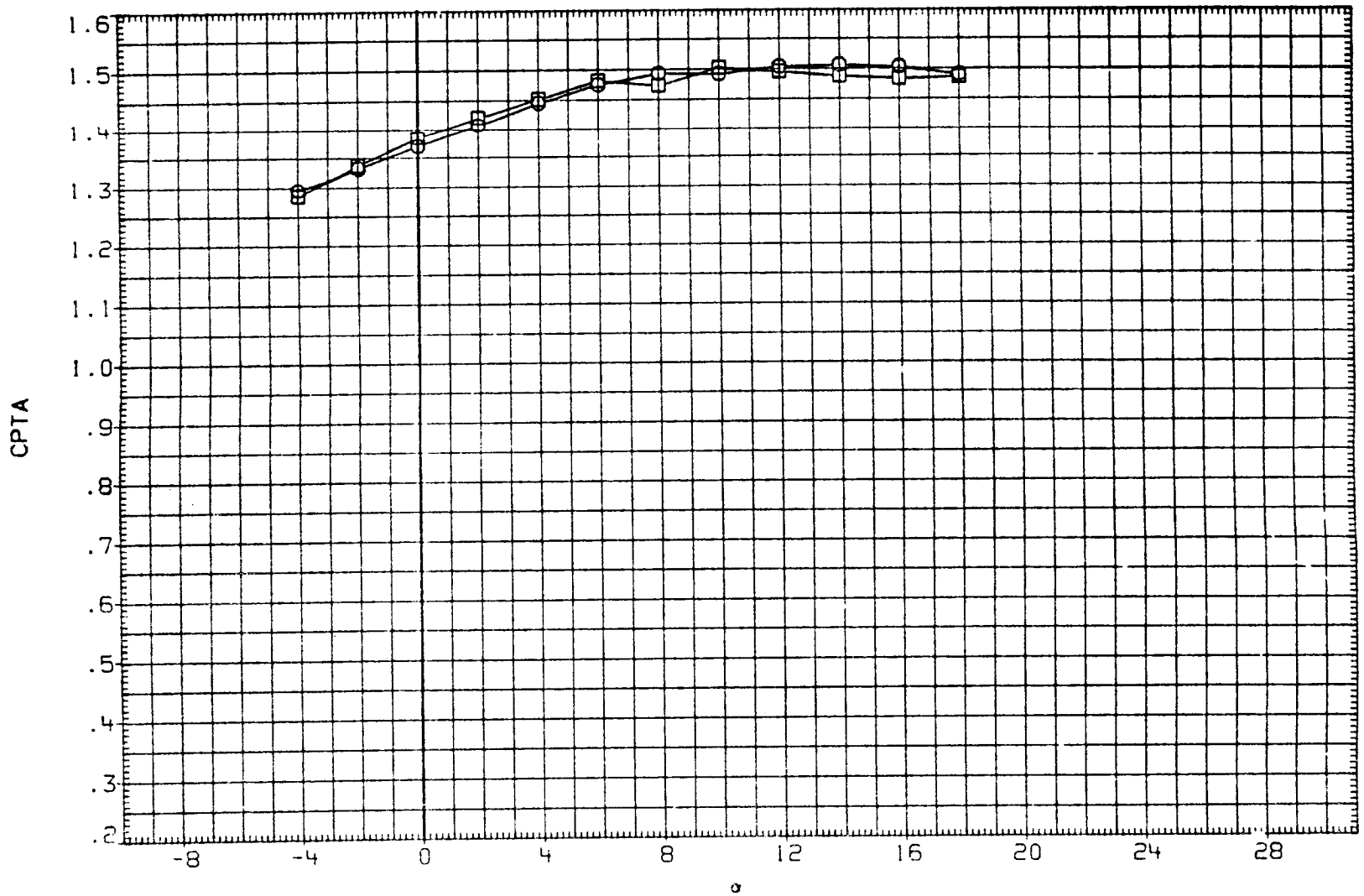


FIG. 17 0A232 SIDE PROBE CPTA VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON LEFT SIDE

(P)MACH = 1.40 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB12	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

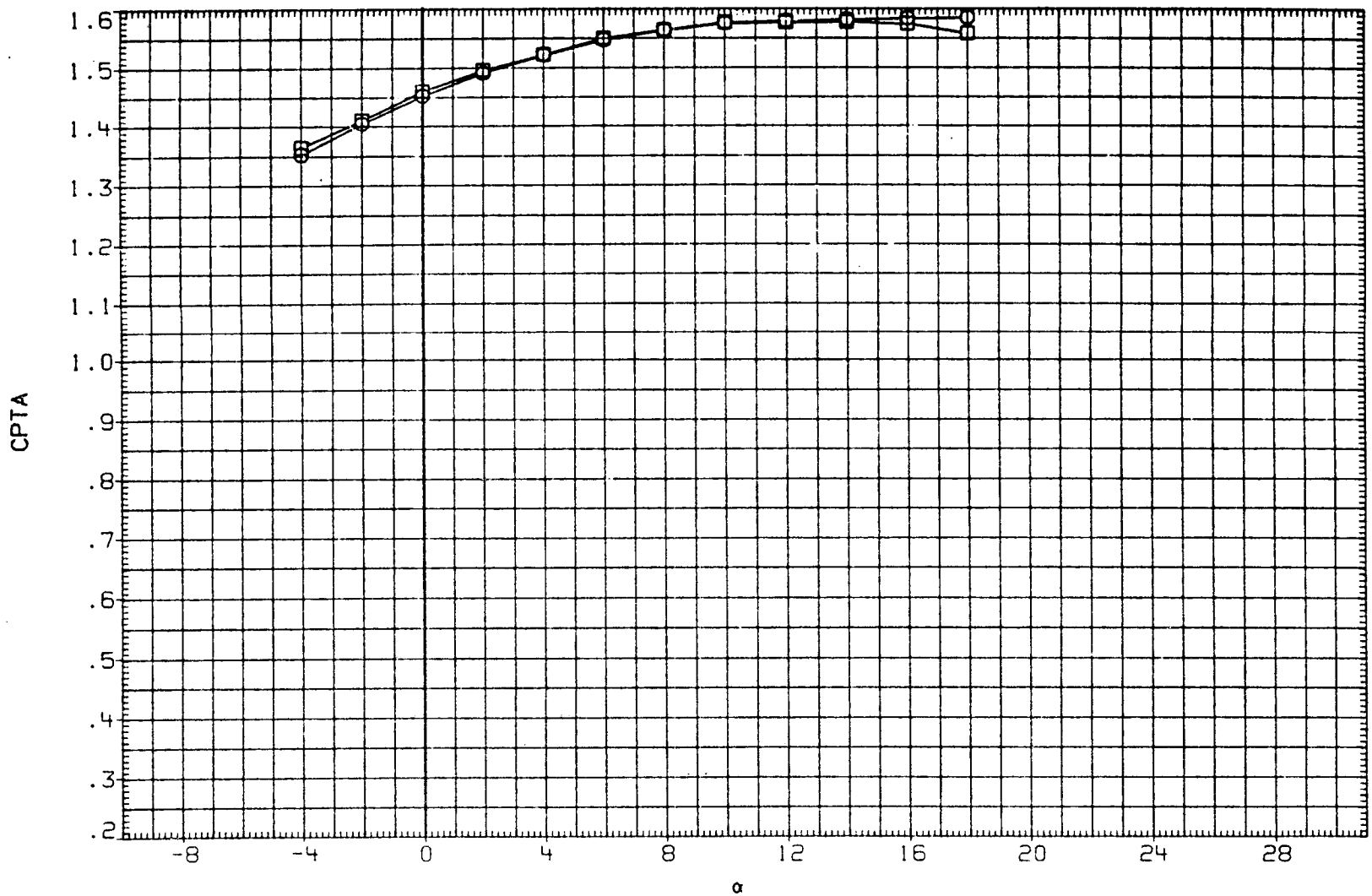


FIG. 17 0A232 SIDE PROBE CPTA VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON LEFT SIDE

(Q) MACH = 1.55 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRB04	○	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	.000	.000
AVRB05	□	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	2.000	.000

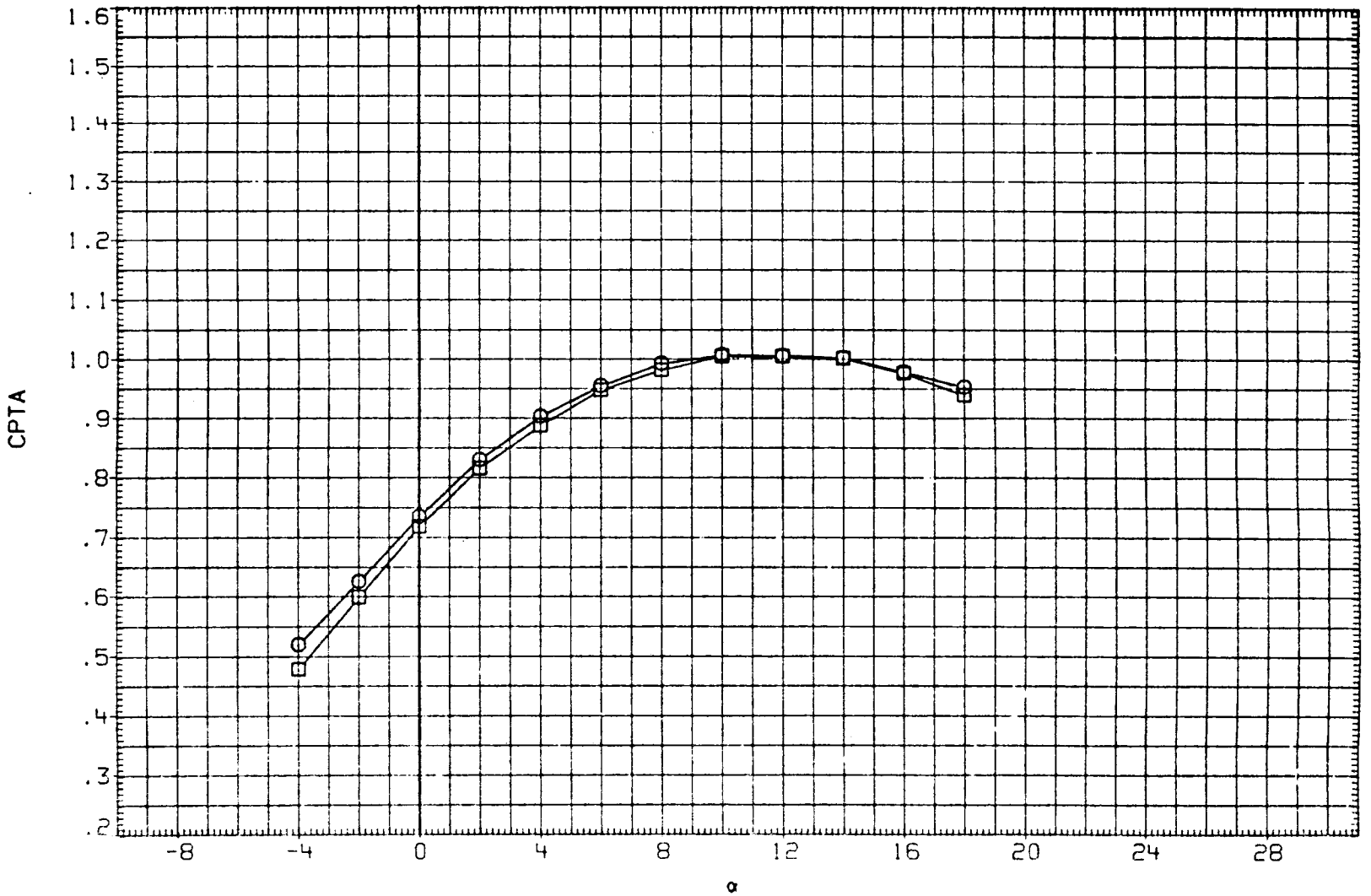


FIG. 18 0A232 SIDE PROBE CPTA VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE

(A) MACH = .20 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRB04	○	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	.000	.000
AVRB06	□	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	2.000	.000

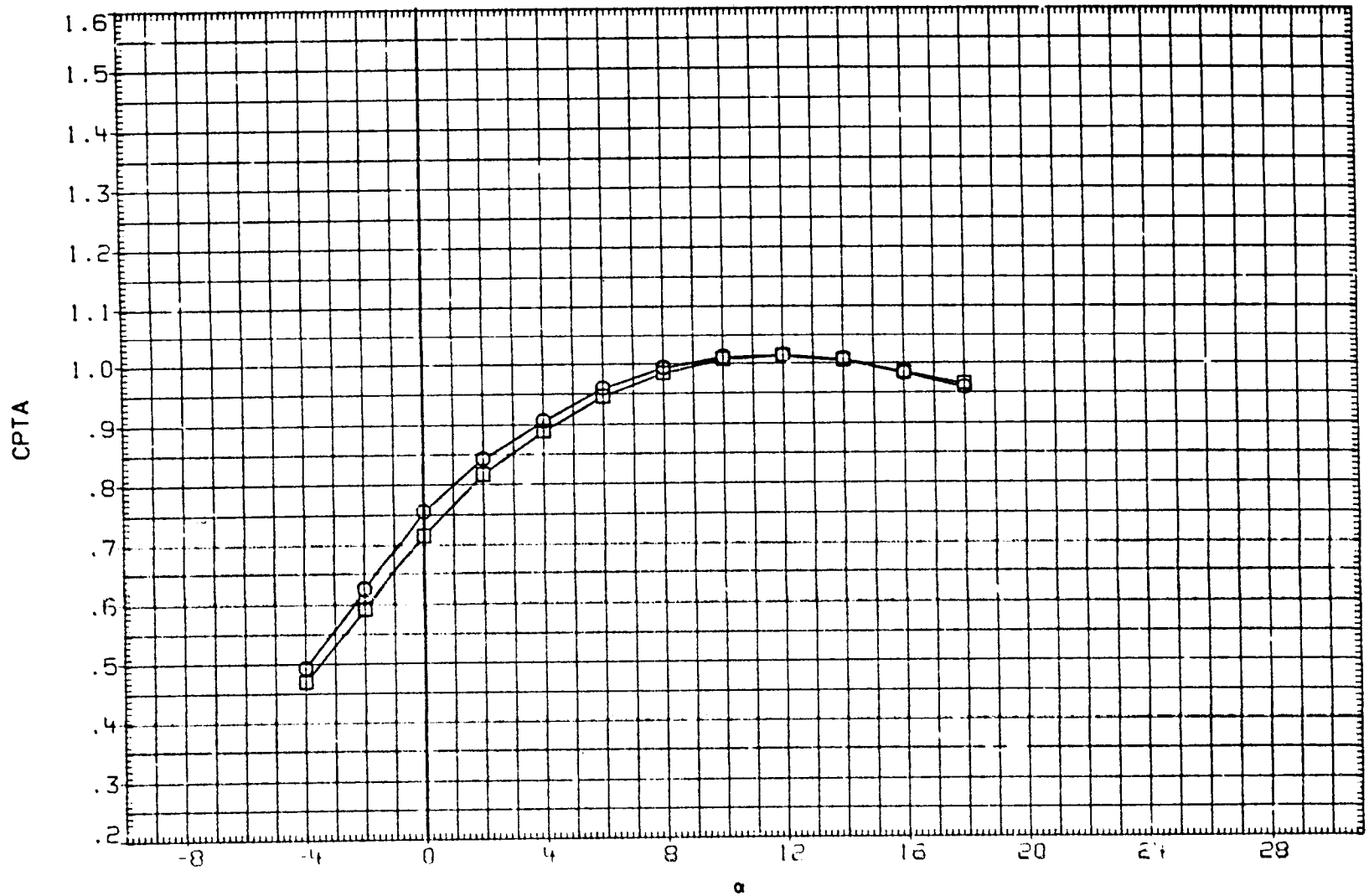


FIG. 18 0A232 SIDE PROBE CPTA VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE

(B)MACH = .25 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVR804	○	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	.000	.000
AVR806	□	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	2.000	.000

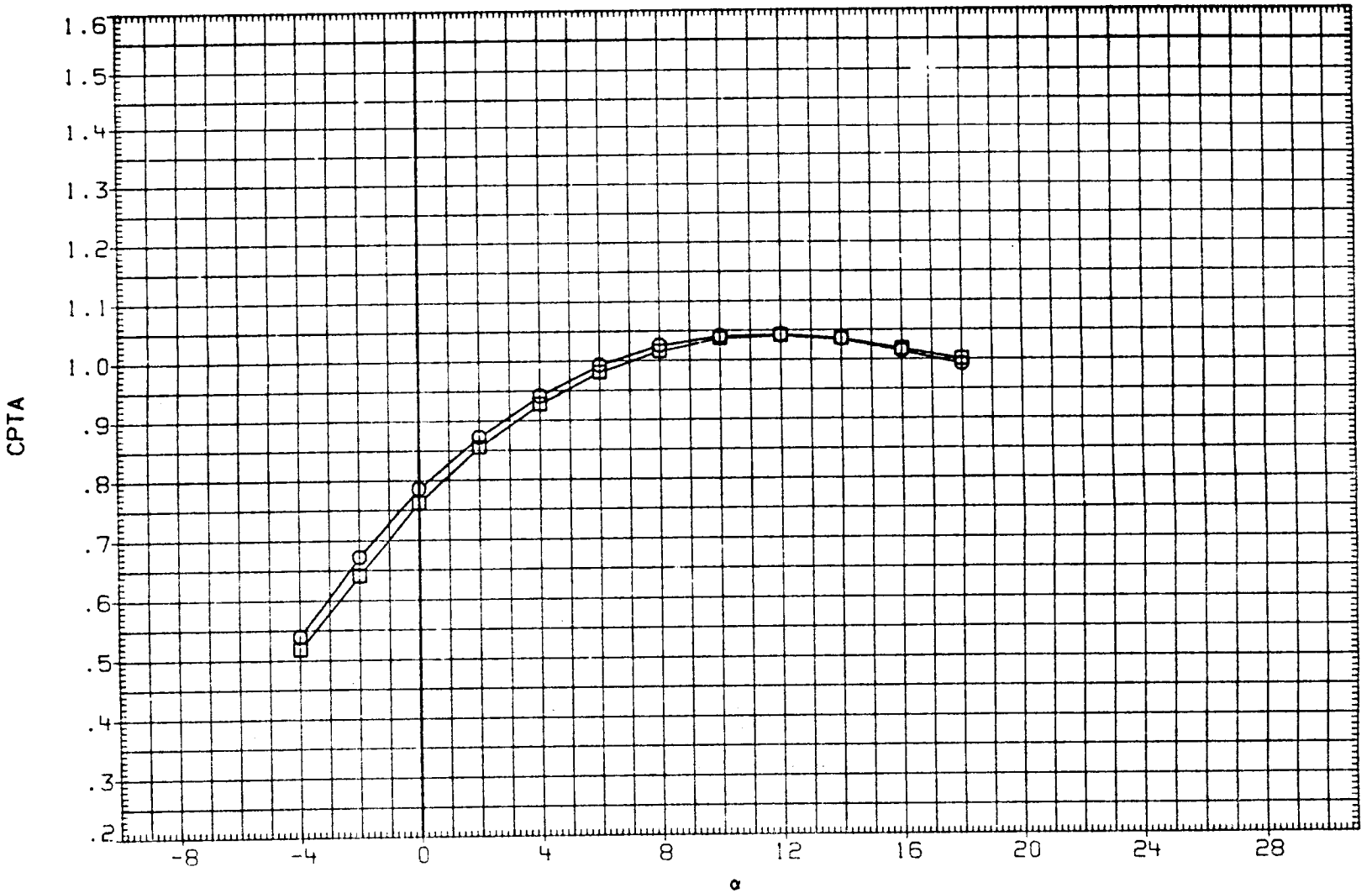


FIG. 18 0A232 SIDE PROBE CPTA VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE

(C)MACH = .40 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRB04	○	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	.000	.000
AVRB06	□	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	2.000	.000

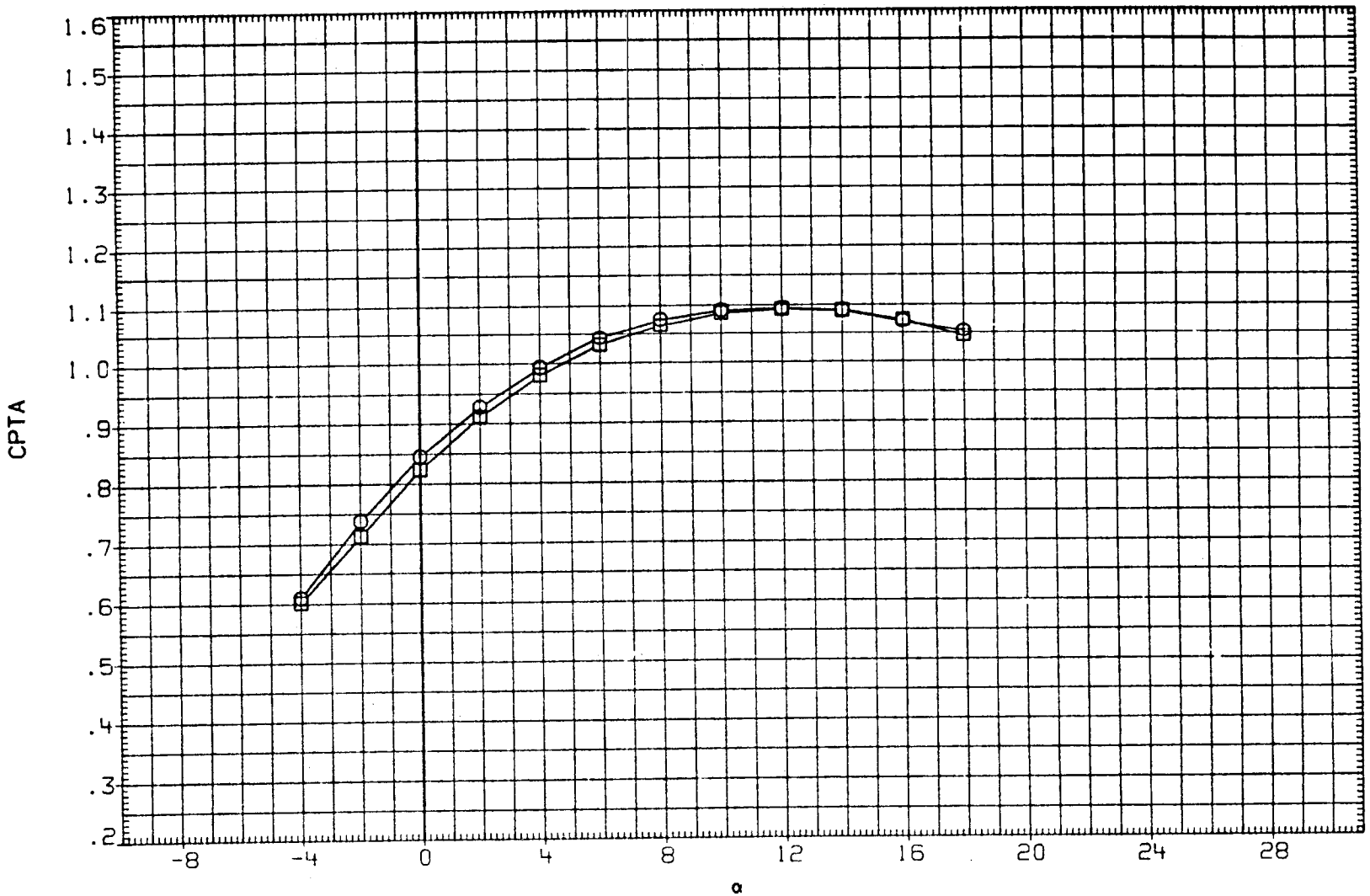


FIG. 18 0A232 SIDE PROBE CPTA VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE

(D)MACH = .60 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVRB04	○	0A232	AEDC	16T	TF431	LFN.1S	RA .2P/S	.000	.000
AVRB06	□	0A232	AEDC	16T	TF431	LFN.1S	RA .2P/S	2.000	.000

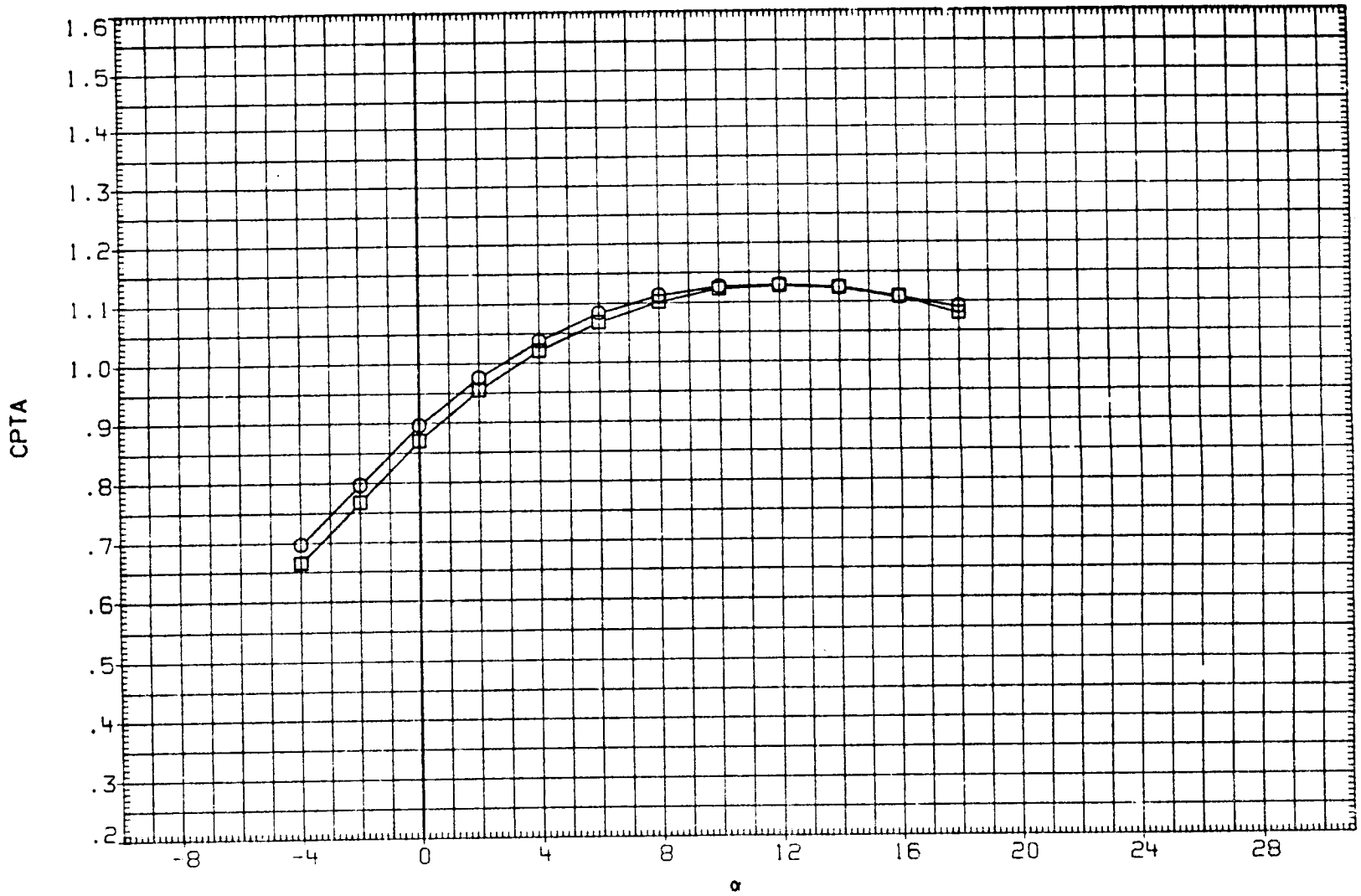


FIG. 18 0A232 SIDE PROBE CPTA VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON RIGHT SIDE

(E) MACH = .70 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRB04	○	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	.000	.000
AVRB06	□	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	2.000	.000

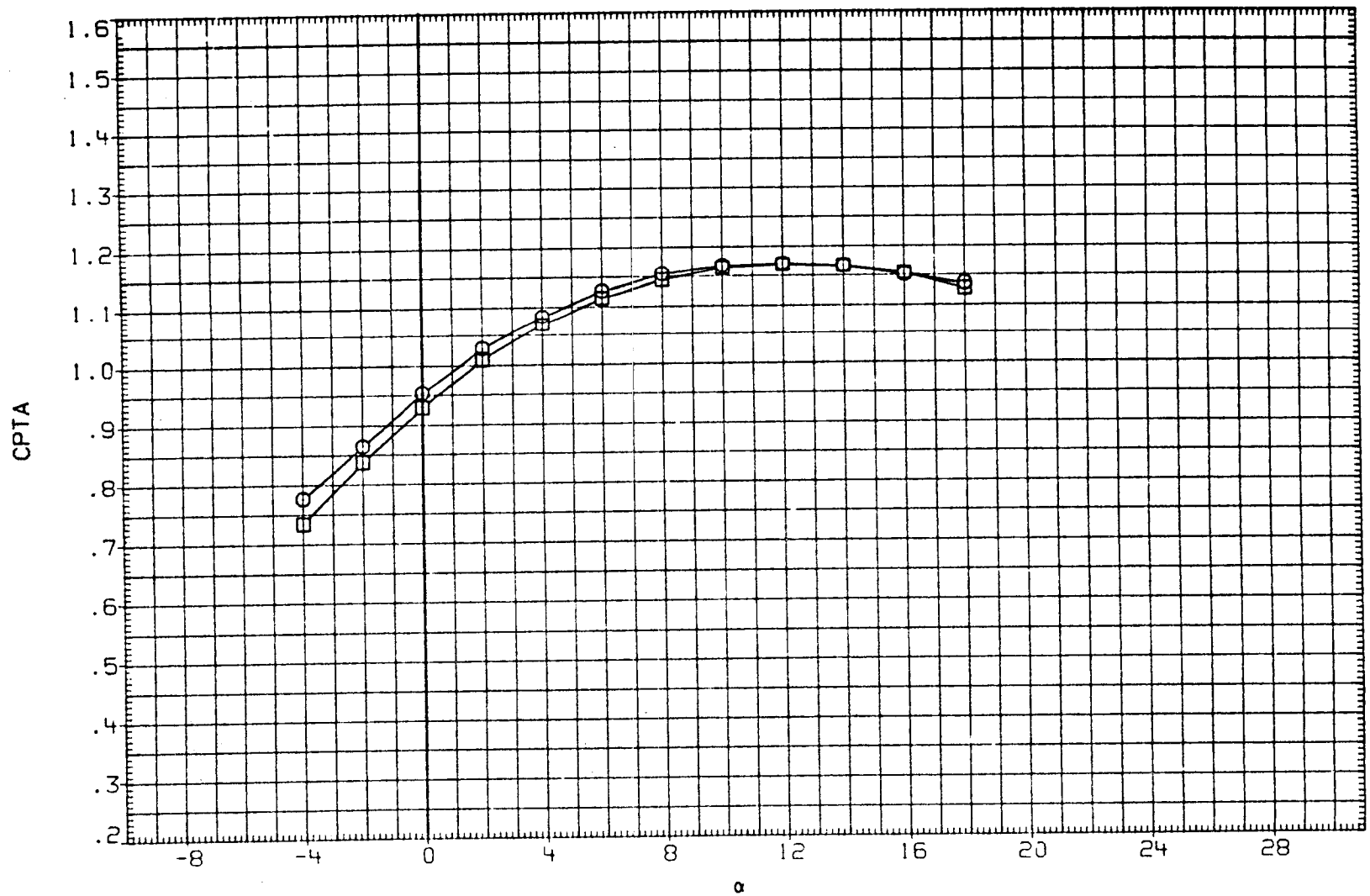


FIG. 18 0A232 SIDE PROBE CPTA VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE

(F)MACH = .80 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB04	○	0A232 AEDC 16T TF431 LFN.1S RA .2P/S	.000	.000
AVRB06	□	0A232 AEDC 16T TF431 LFN.1S RA .2P/S	2.000	.000

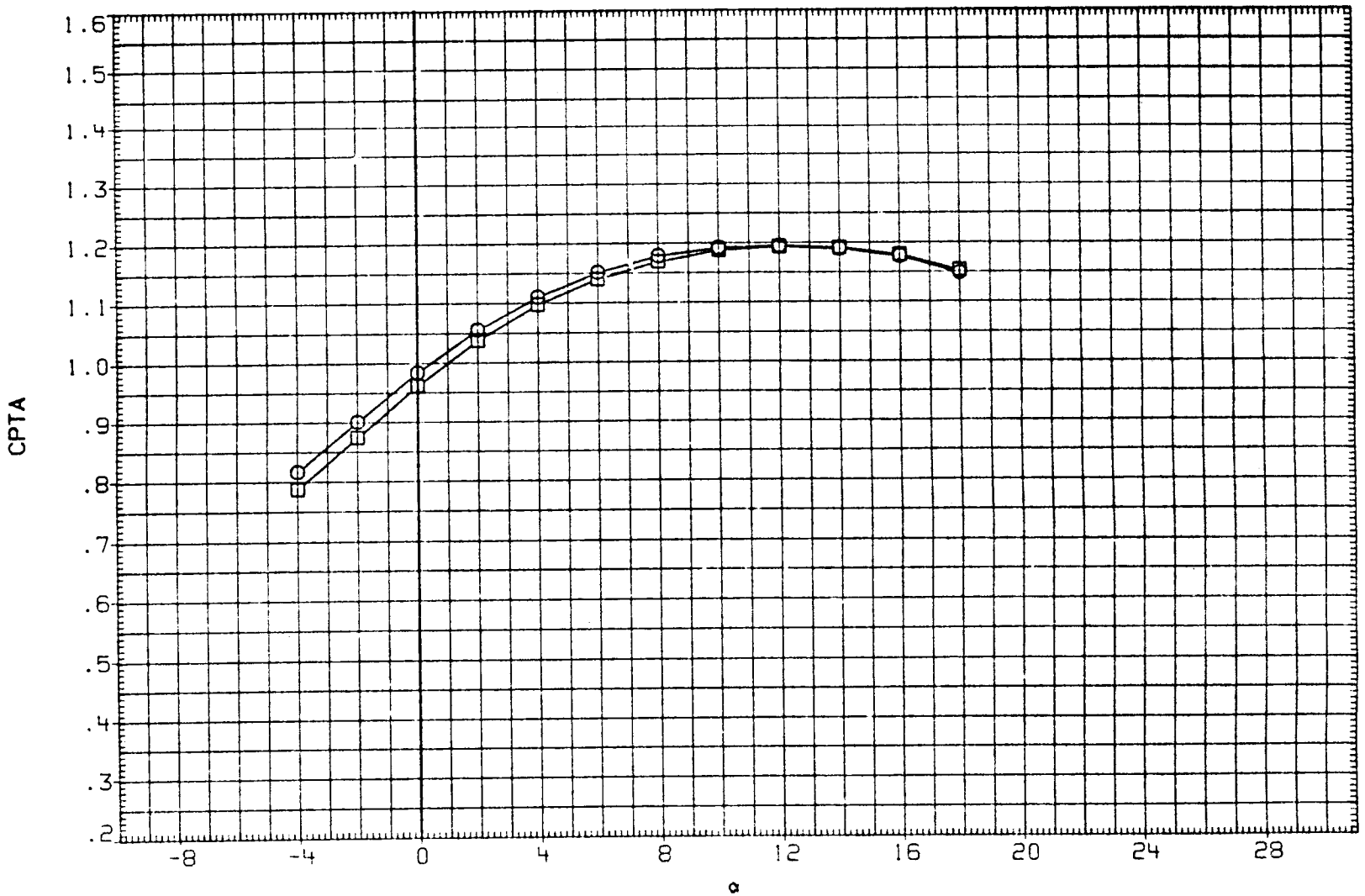


FIG. 18 0A232 SIDE PROBE CPTA VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE

(G)MACH = .85 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRB04	○	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	.000	.000
AVRB05	□	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	2.000	.000

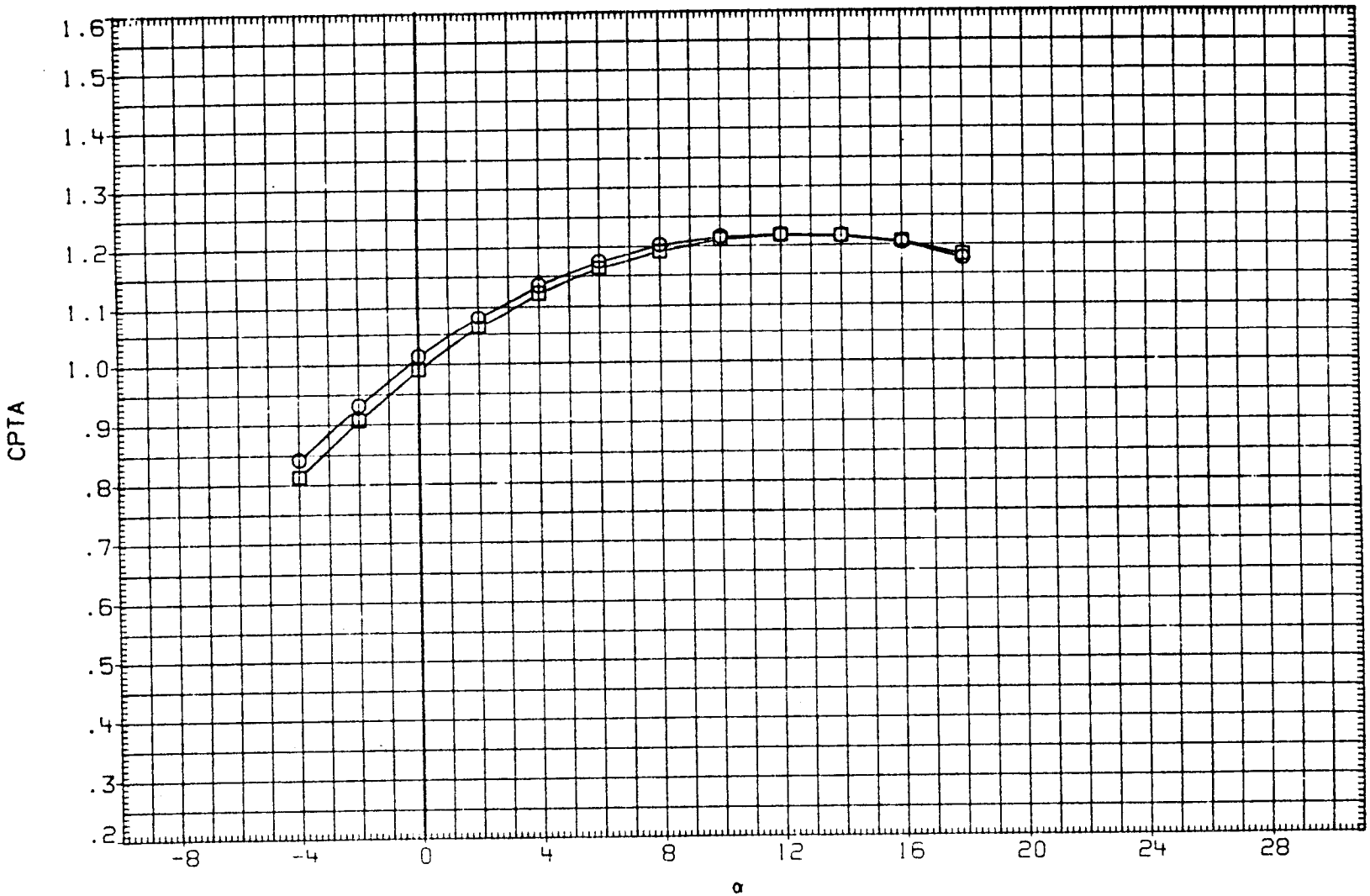


FIG. 18 0A232 SIDE PROBE CPTA VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE

(H)MACH = .90 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRB04	○	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	.000	.000
AVRB06	□	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	2.000	.000

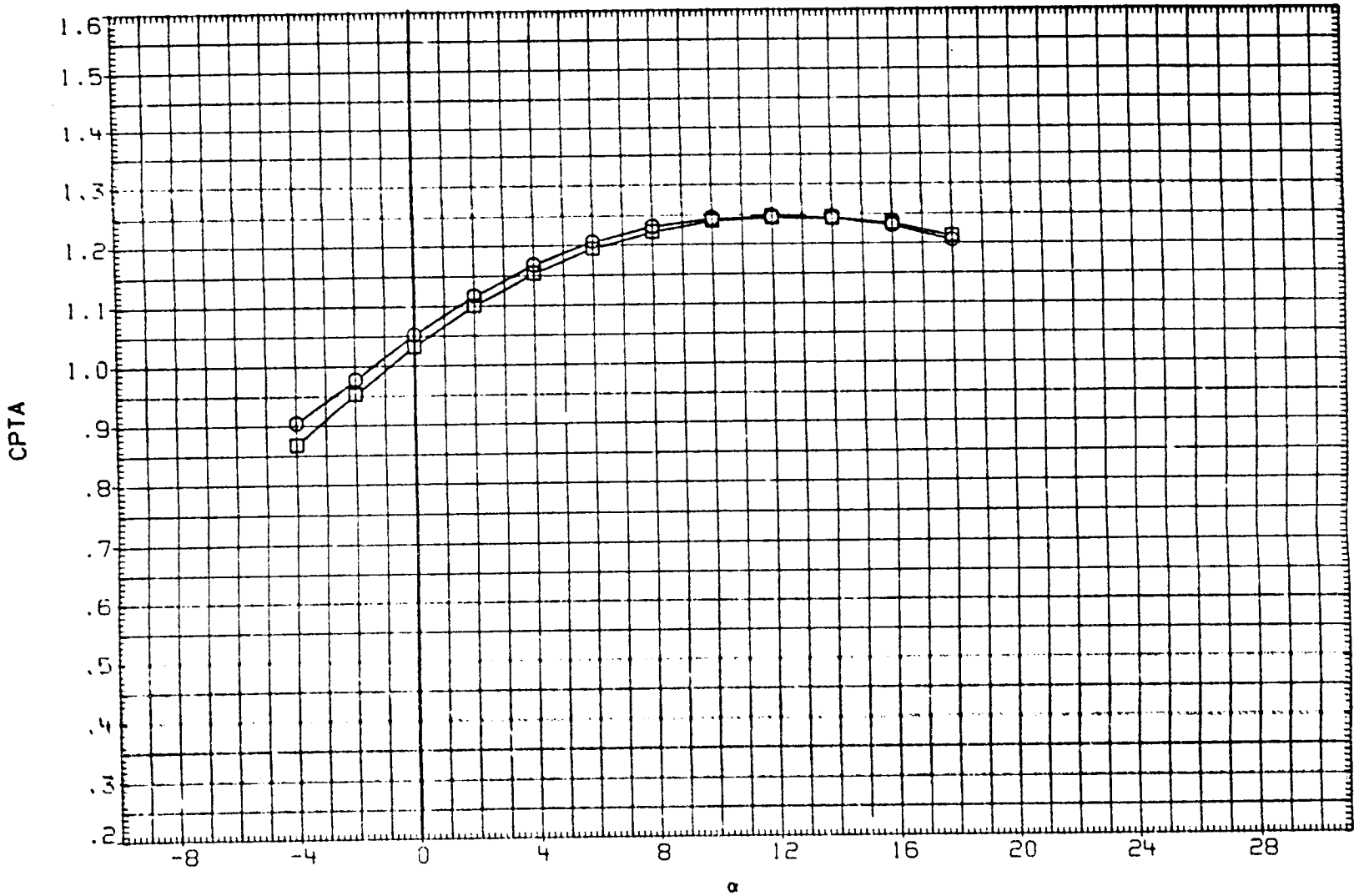


FIG. 18 0A232 SIDE PROBE CPTA VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE

(I)MACH = .95 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRB04	○	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	.000	.000
AVRB06	□	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	2.000	.000

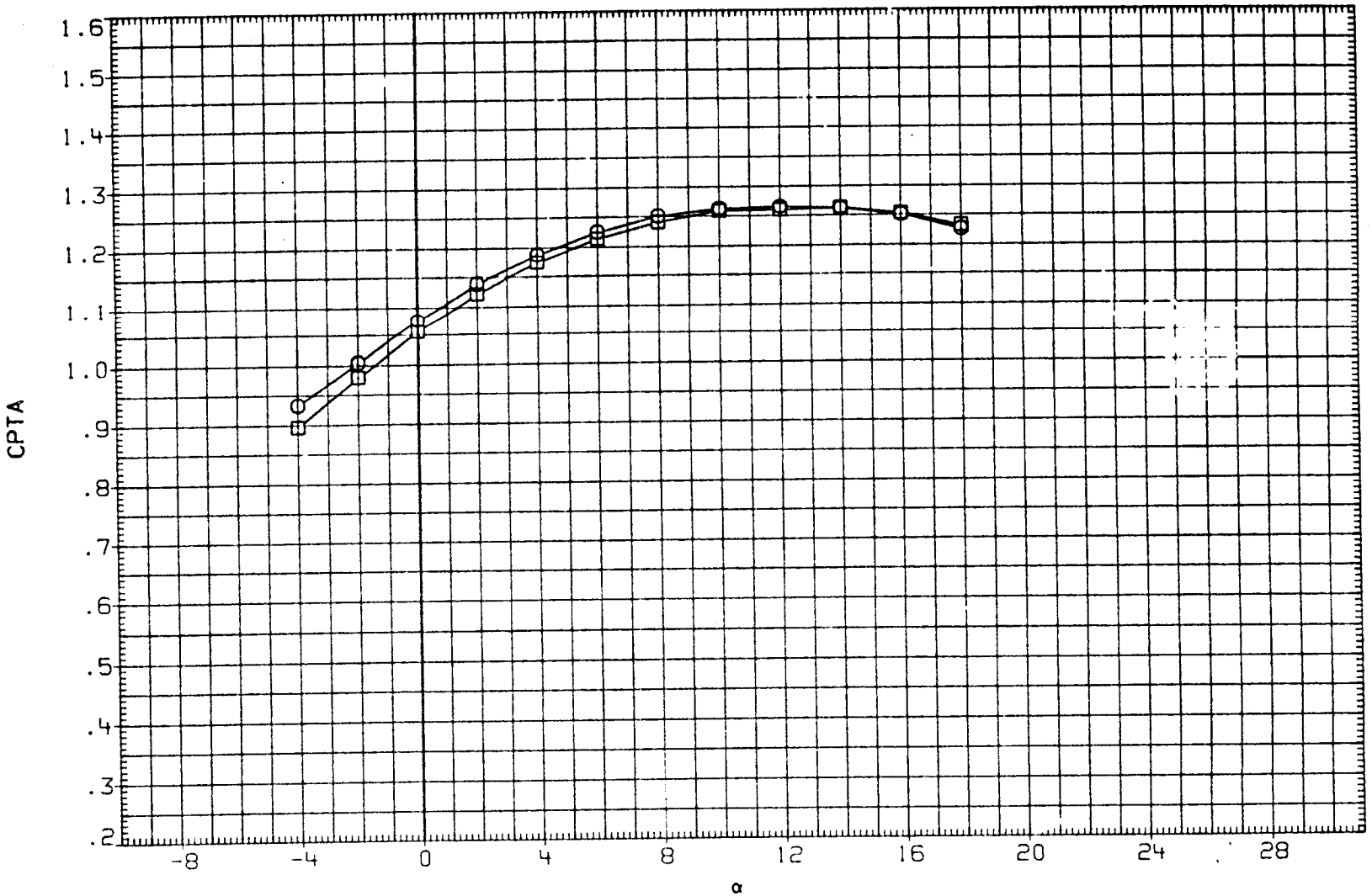


FIG. 18 0A232 SIDE PROBE CPTA VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON RIGHT SIDE

(J)MACH = .98 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRB04	○	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	.000	.000
AVRB06	□	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	2.000	.000

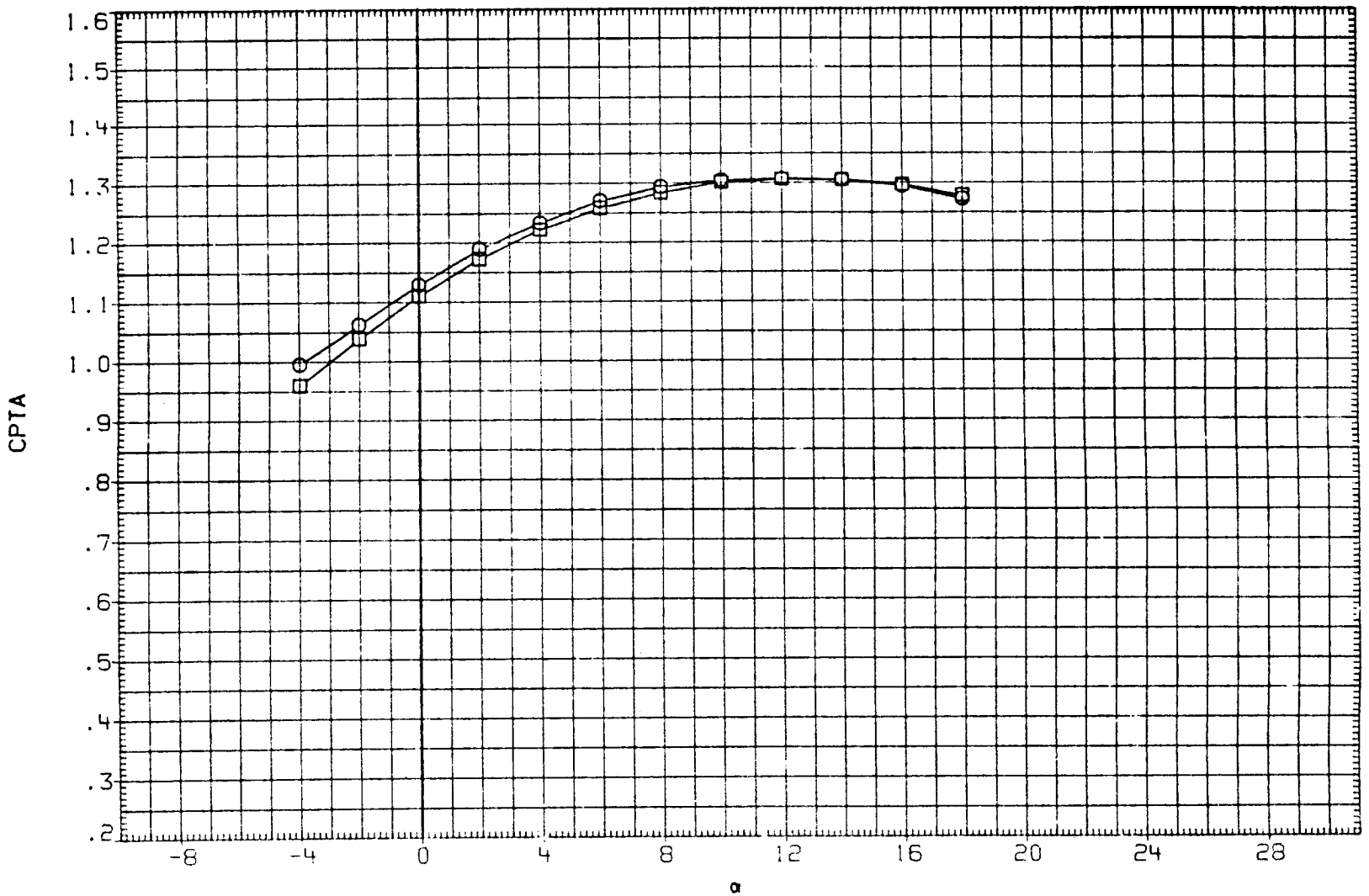


FIG. 18 0A232 SIDE PROBE CPTA VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE

(K)MACH = 1.05 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRB04	○	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	.000	.000
AVRB06	□	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	2.000	.000

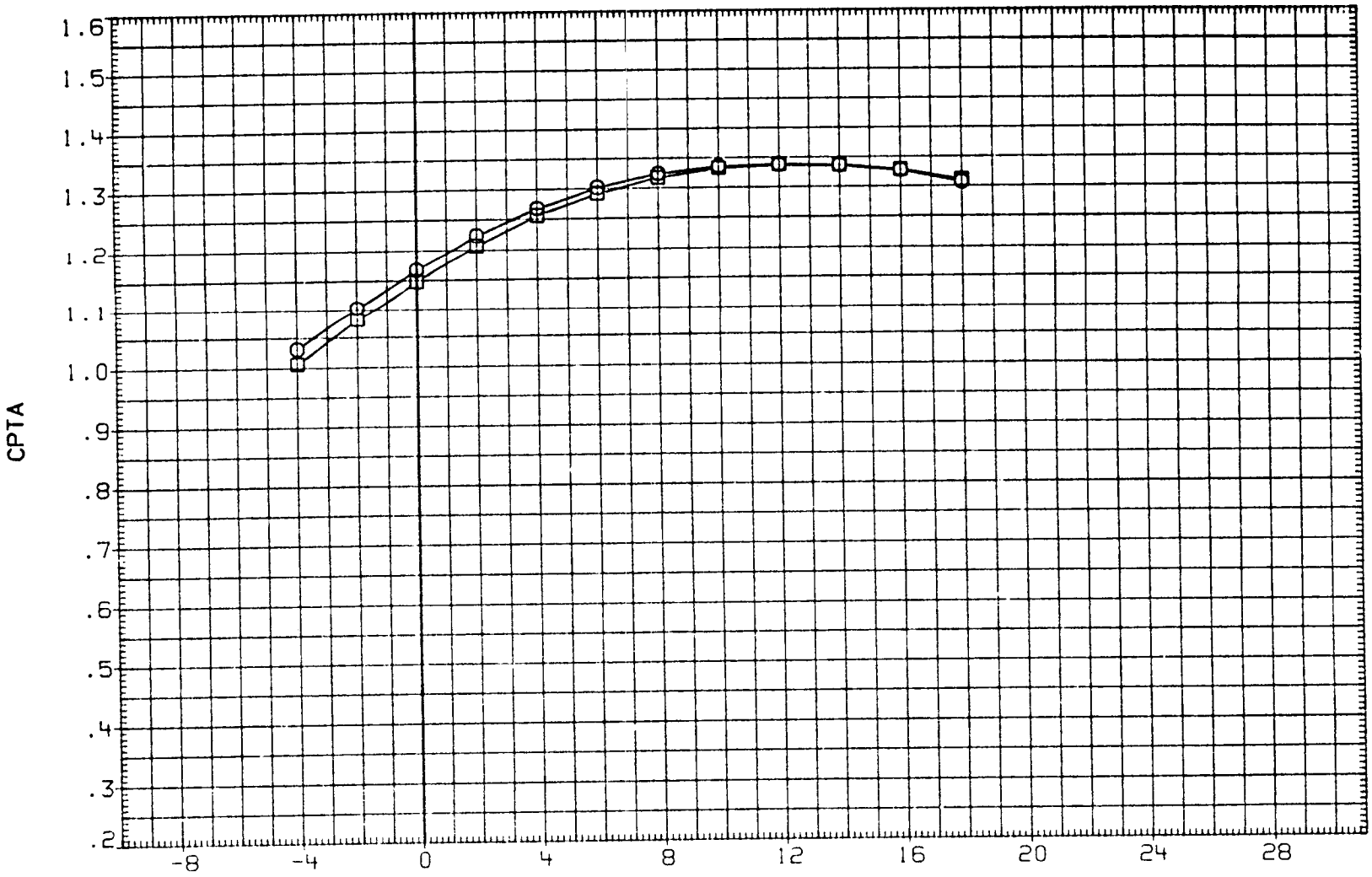


FIG. 18 0A232 SIDE PROBE CPTA VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON RIGHT SIDE

(L)MACH = 1.10 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRB04	○	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	.000	.000
AVRB06	□	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	2.000	.000

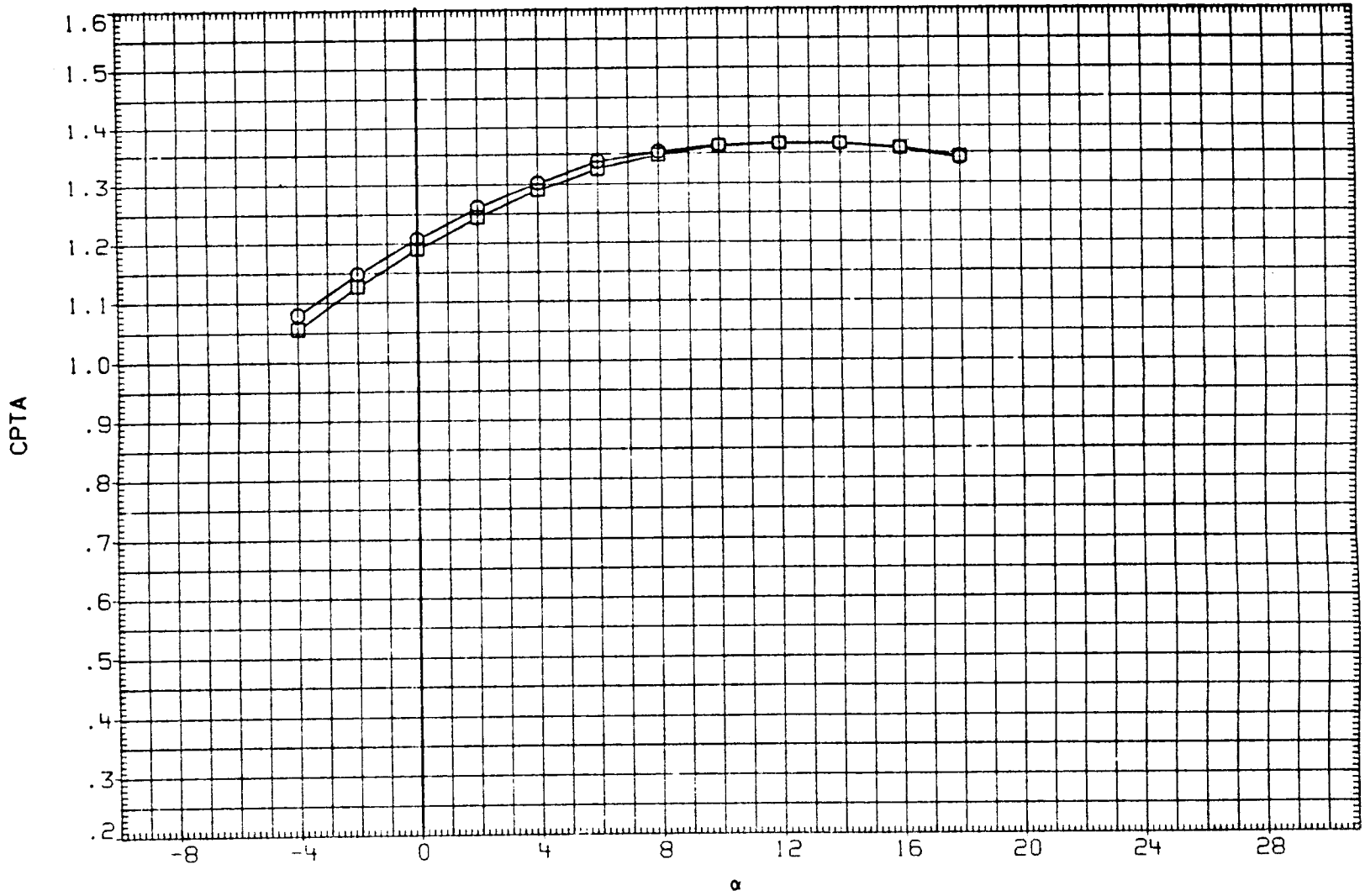


FIG. 18 0A232 SIDE PROBE CPTA VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON RIGHT SIDE

(M) MACH = 1.15 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRB04	○	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	.000	.000
AVRB06	□	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	2.000	.000

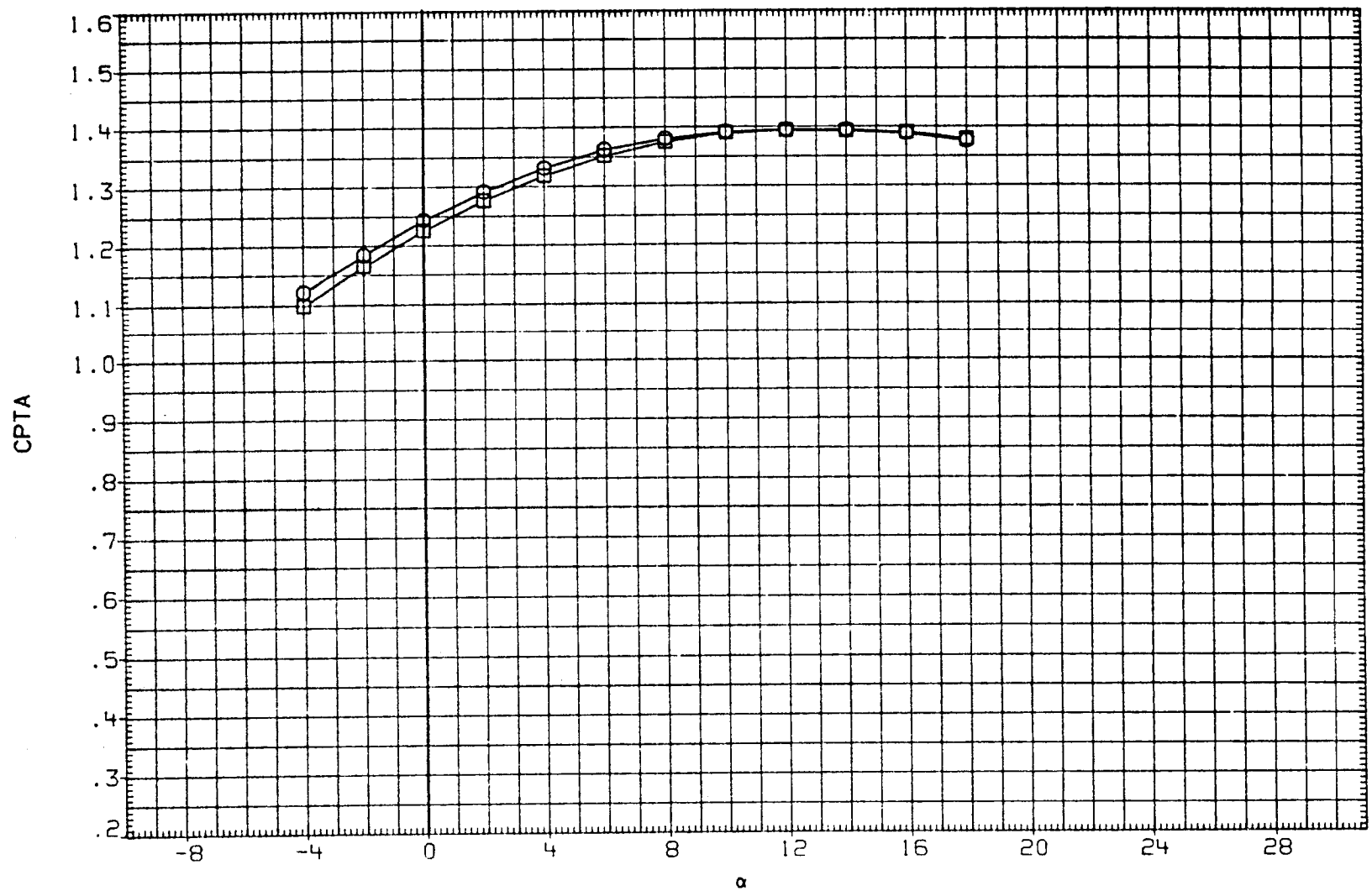


FIG. 18 0A232 SIDE PROBE CPTA VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE

(N)MACH = 1.20 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVR804	○	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	.000	.000
AVR806	□	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	2.000	.000

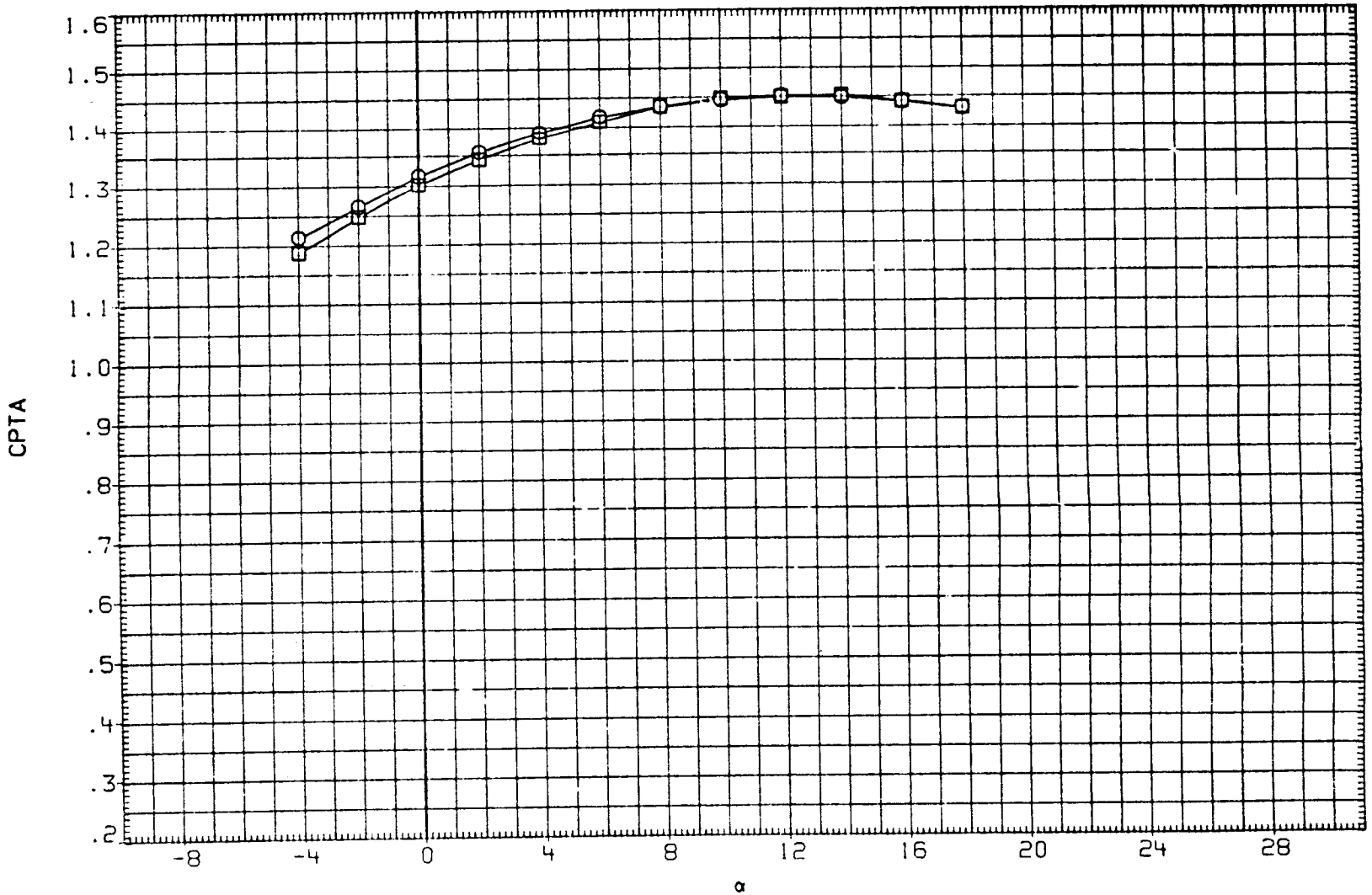


FIG. 18 0A232 SIDE PROBE CPTA VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE

(O)MACH = 1.30 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRB04	○	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	.000	.000
AVRB06	□	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	2.000	.000

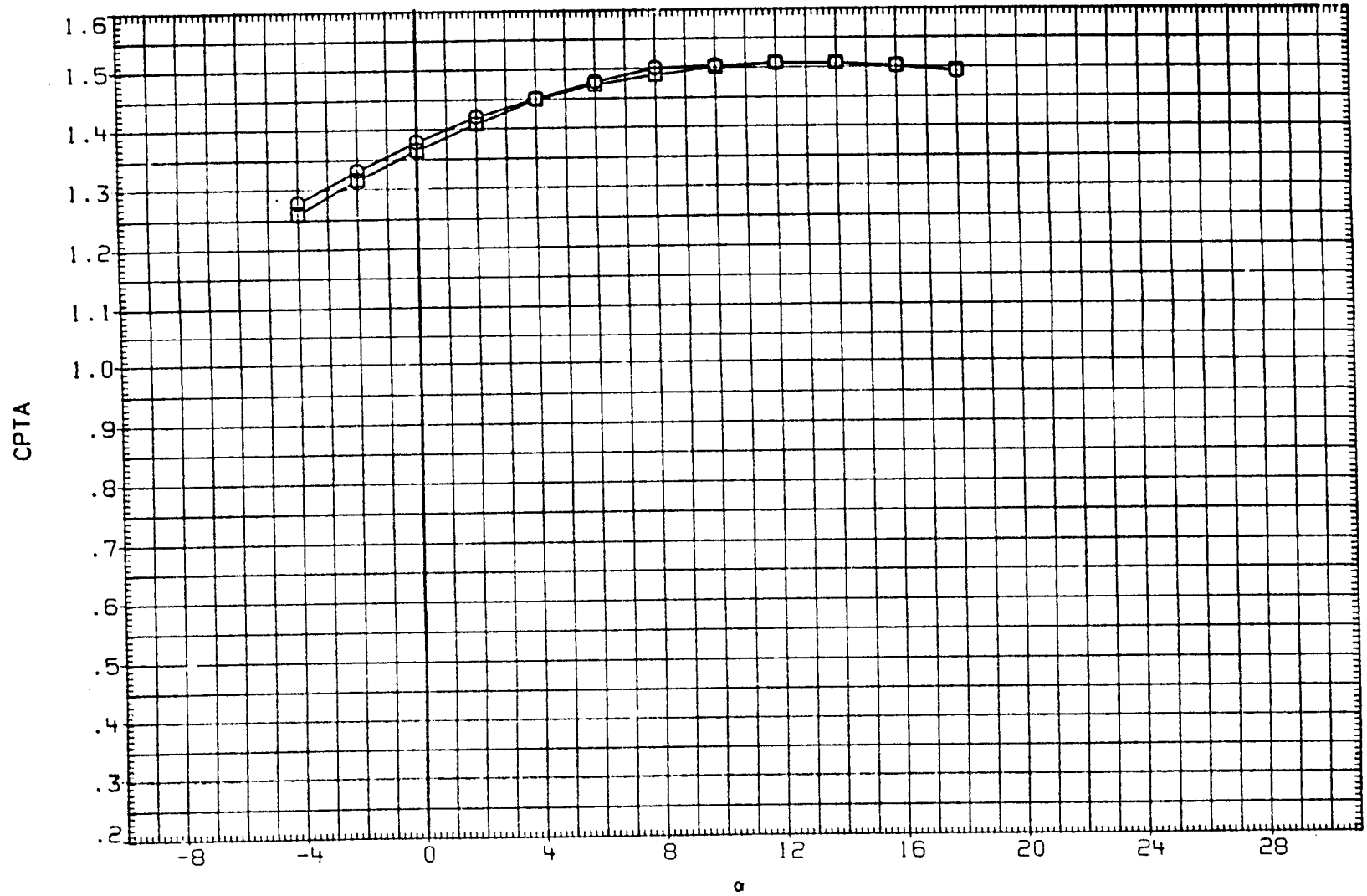


FIG. 18 0A232 SIDE PROBE CPTA VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE

(P)MACH = 1.40 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVR804	○	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	.000	.000
AVR806	□	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	2.000	.000

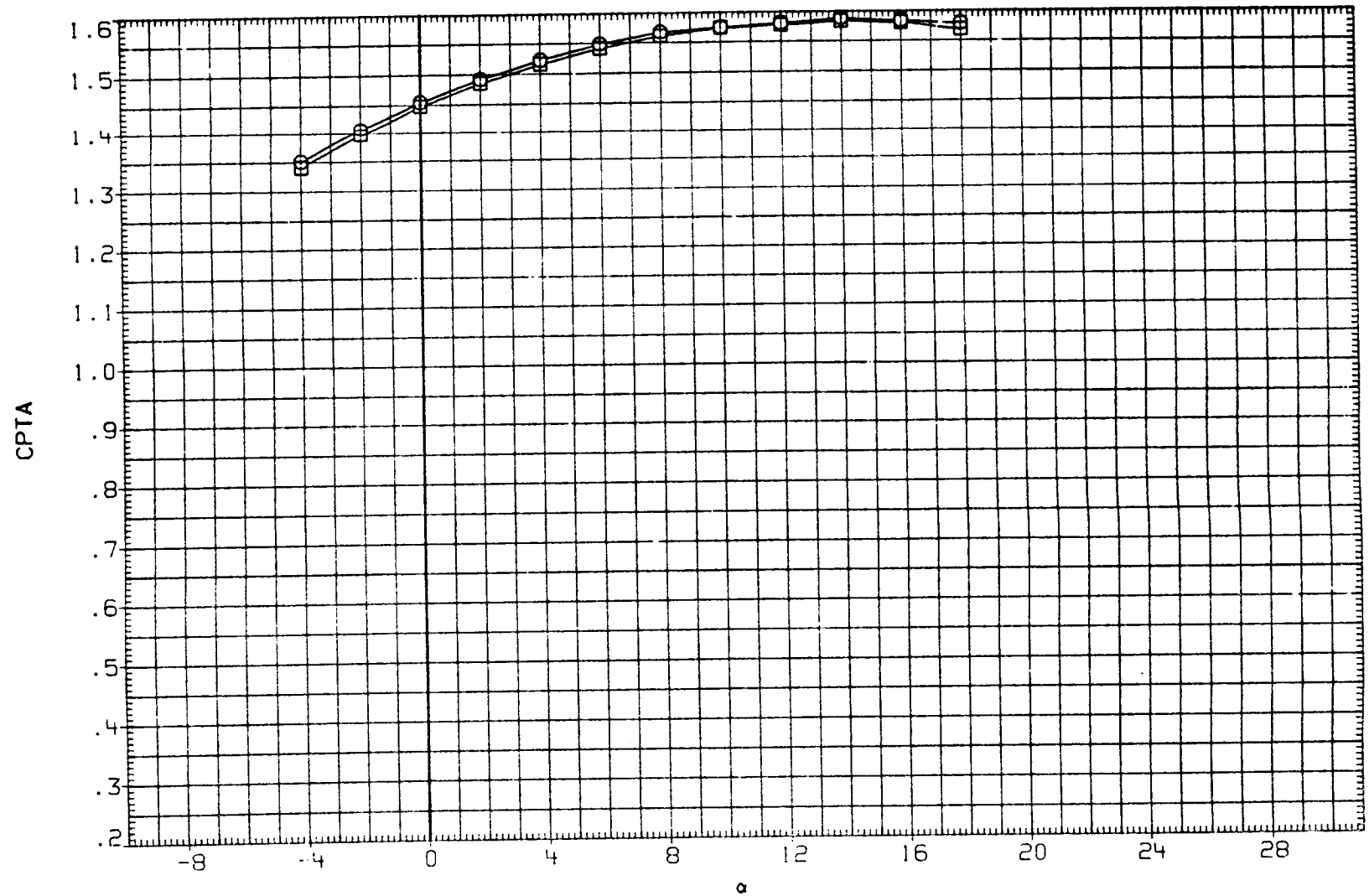


FIG. 18 0A232 SIDE PROBE CPTA VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE

(Q) MACH = 1.55 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB11	○	0A232 AEDC 16T TF47; LA .2P/S RA .2A	.000	.000
AVRB12	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

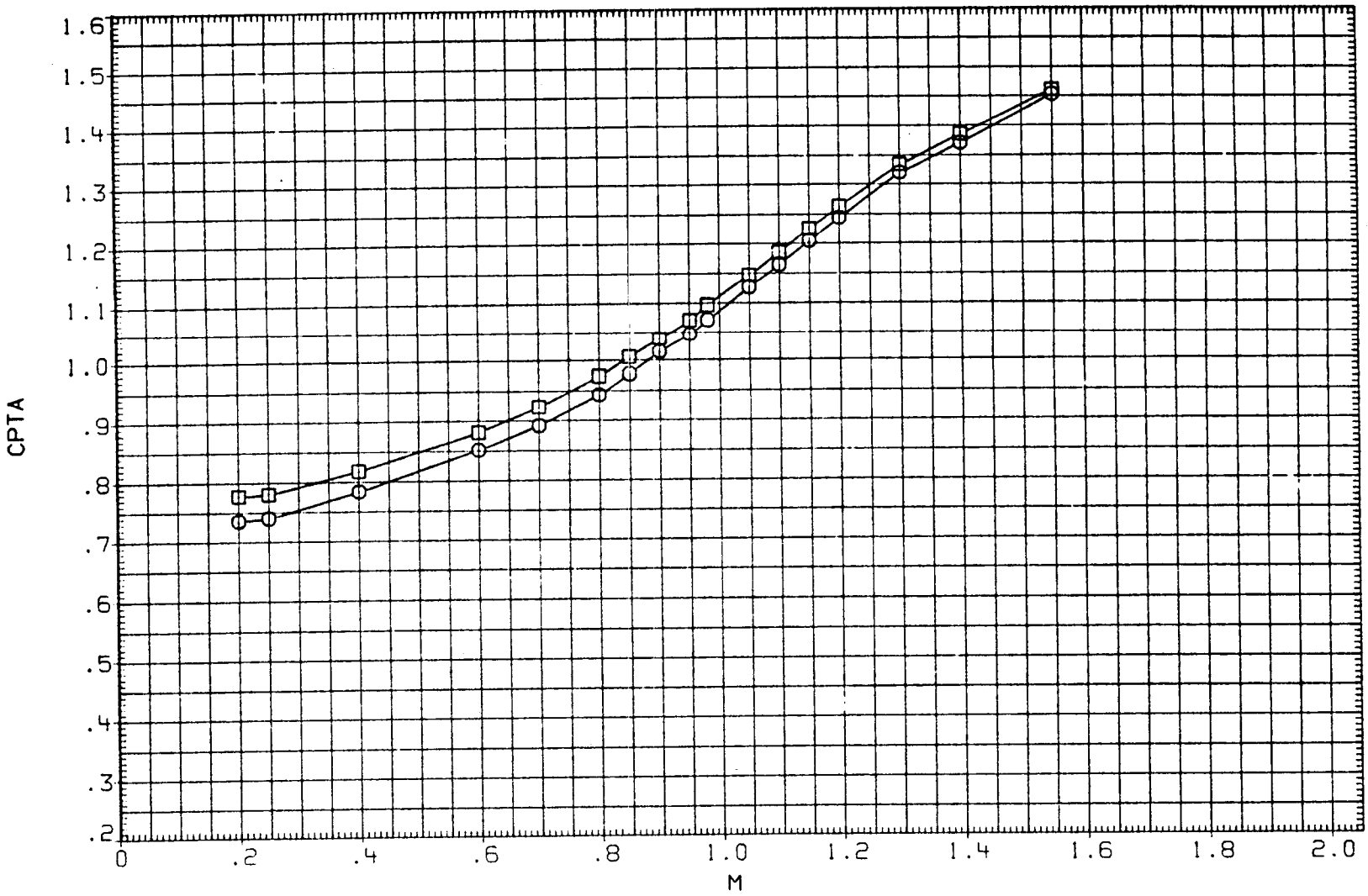


FIG. 19 0A232 SIDE PROBE CPTA VERSUS MACH NUMBER AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON LEFT SIDE

(A)ALPHA = .00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB12	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

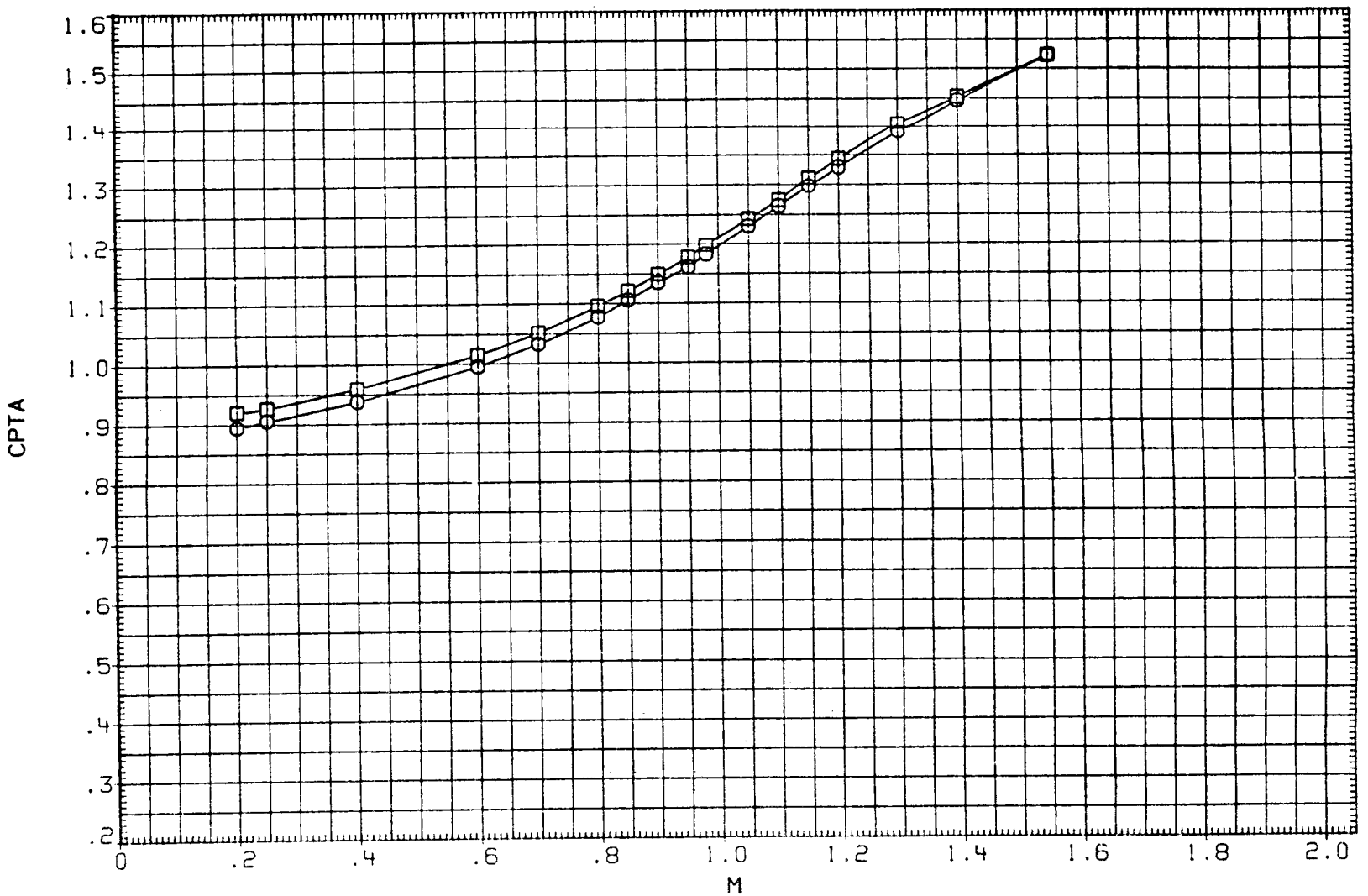


FIG. 19 0A232 SIDE PROBE CPTA VERSUS MACH NUMBER AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON LEFT SIDE

(B) ALPHA = 4.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB12	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

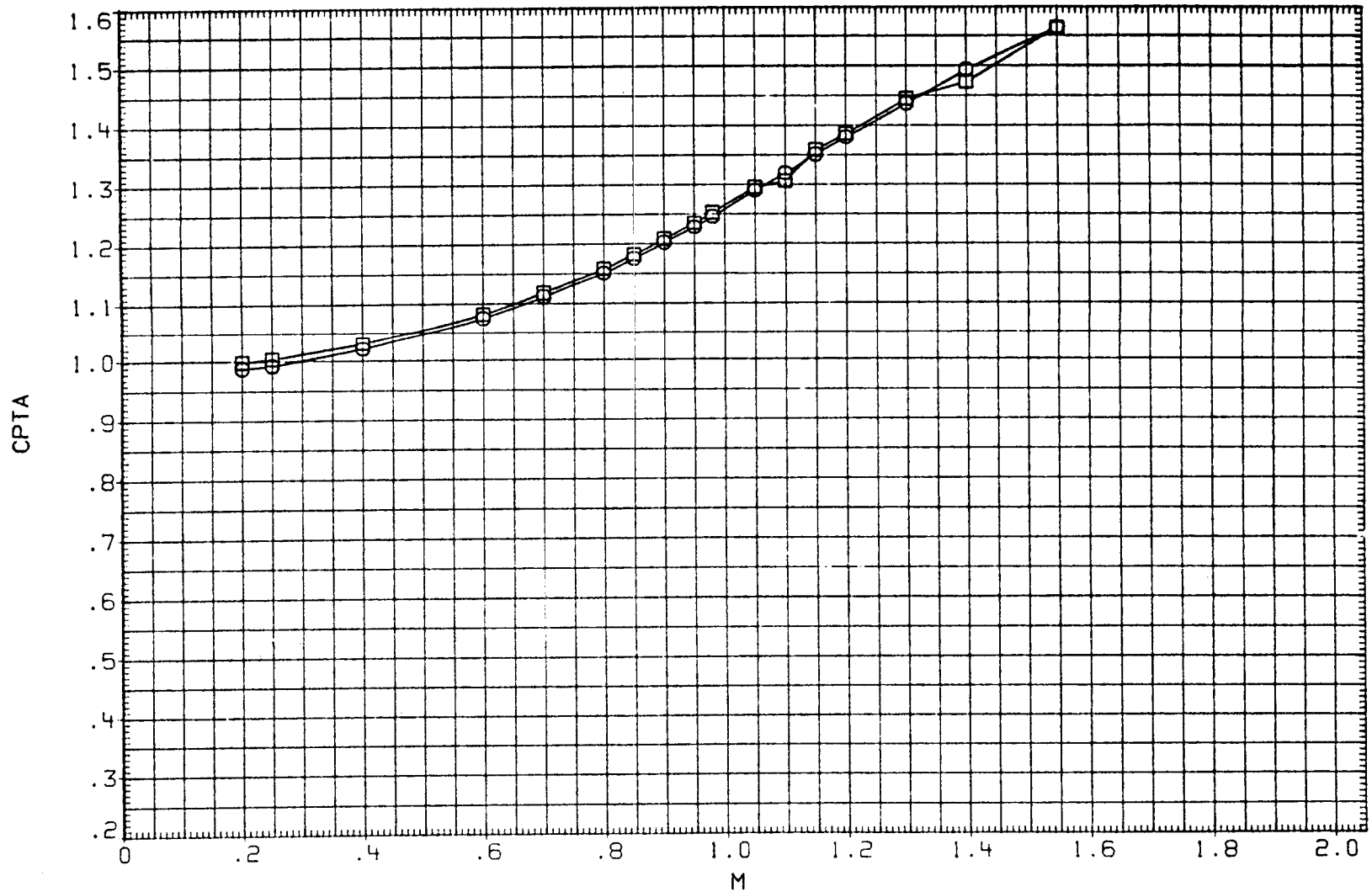


FIG. 19 0A232 SIDE PROBE CPTA VERSUS MACH NUMBER AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON LEFT SIDE

(C)ALPHA = 8.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB12	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

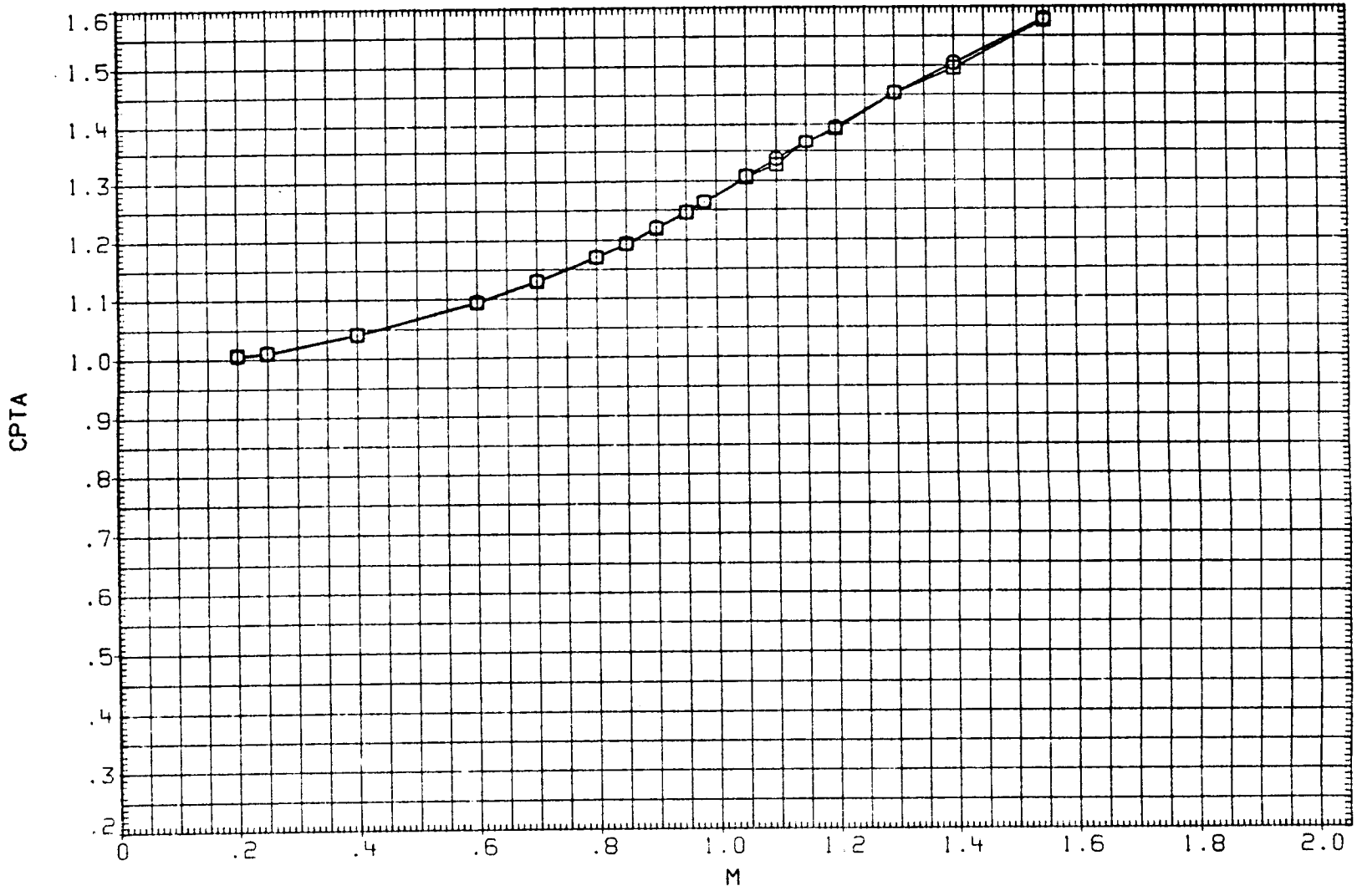


FIG. 19 0A232 SIDE PROBE CPTA VERSUS MACH NUMBER AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON LEFT SIDE

(D) ALPHA = 12.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB12	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

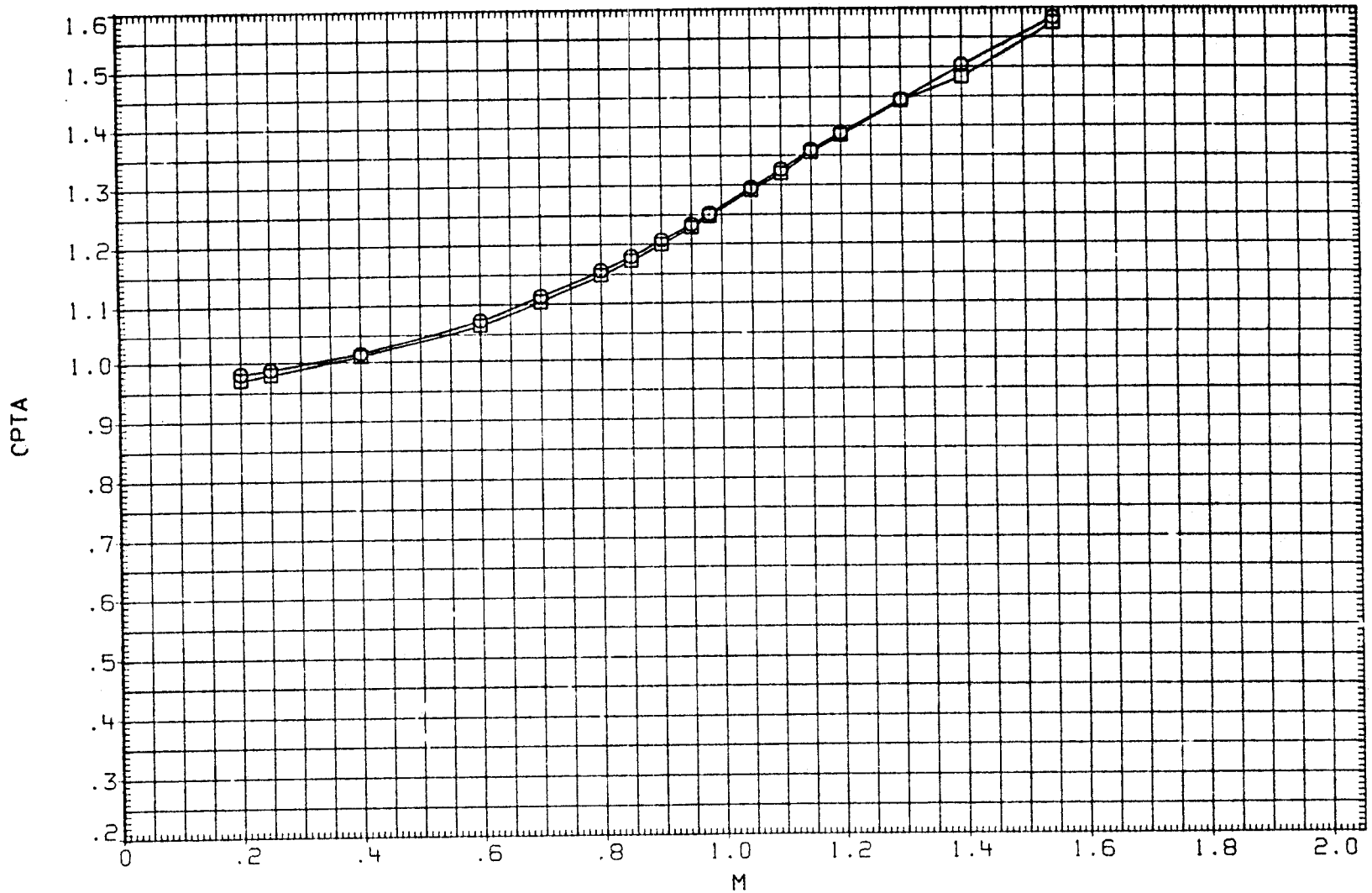


FIG. 19 0A232 SIDE PROBE CPTA VERSUS MACH NUMBER AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON LEFT SIDE

(E)ALPHA = 16.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB12	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

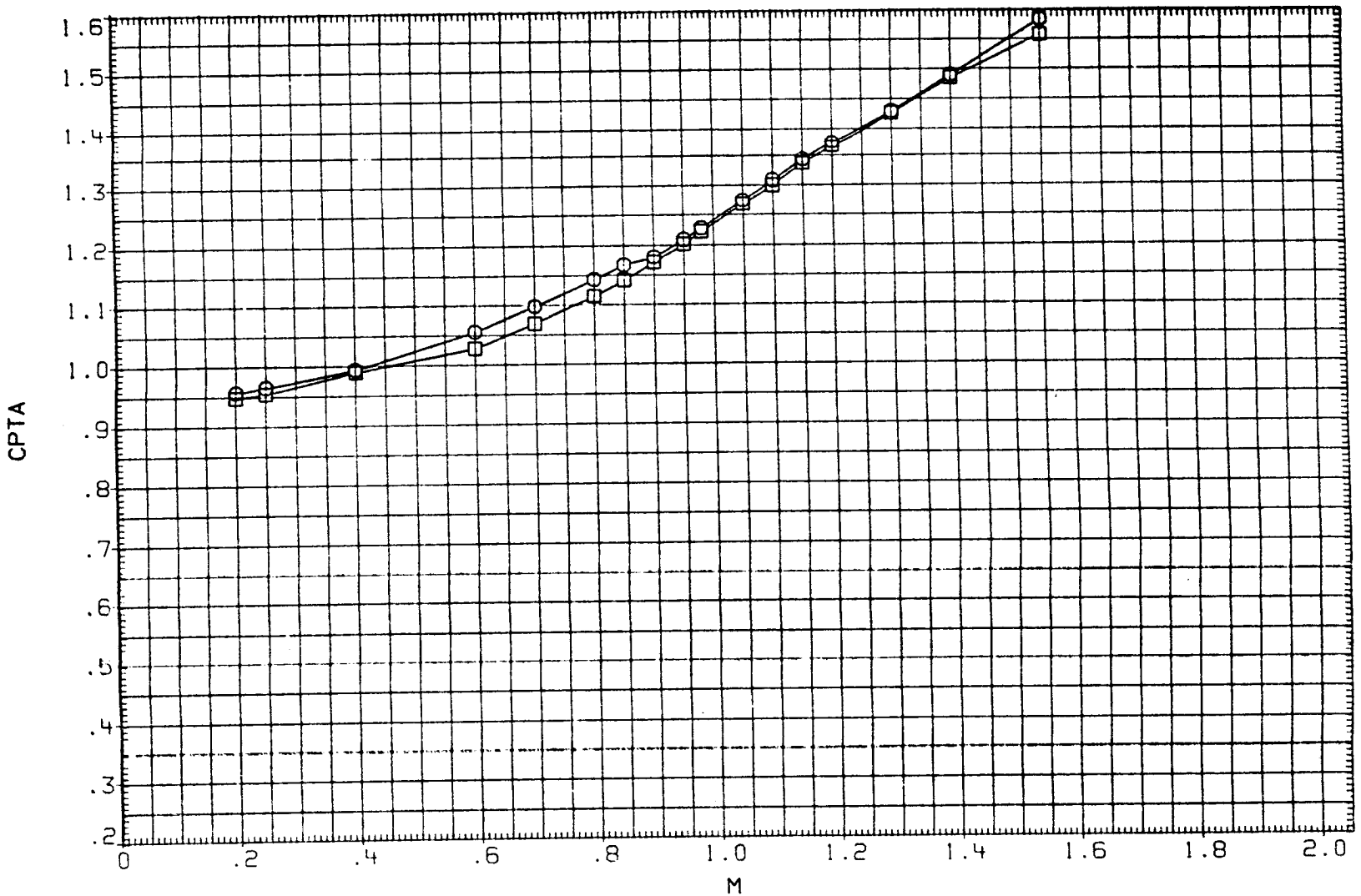


FIG. 19 0A232 SIDE PROBE CPTA VERSUS MACH NUMBER AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON LEFT SIDE

(F)ALPHA = 18.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVR804	○	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	.000	.000
AVR806	□	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	2.000	.000

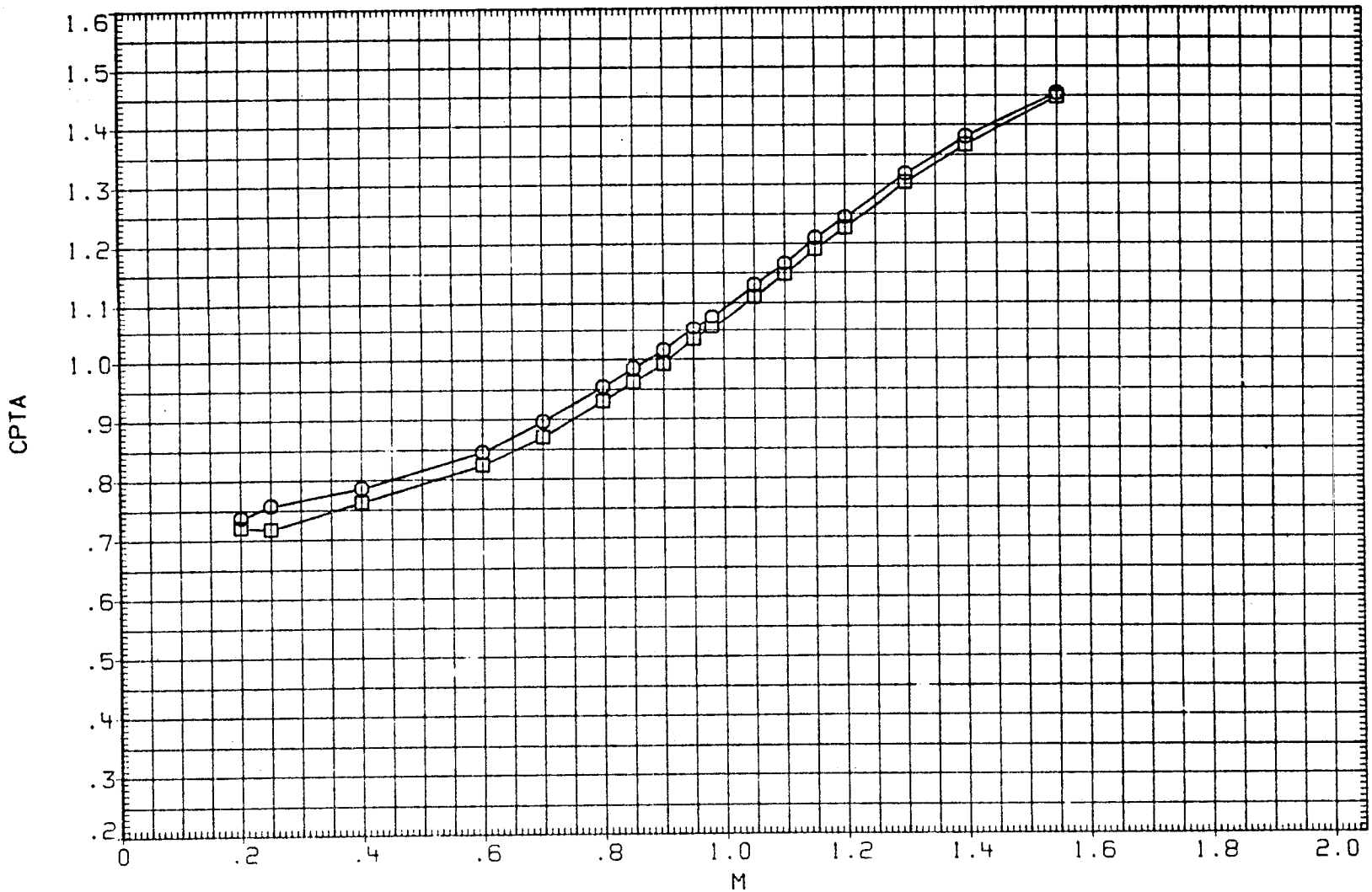


FIG. 20 0A232 SIDE PROBE CPTA VERSUS MACH NUMBER AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE

(A)ALPHA = .00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVR804	○	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	.000	.000
AVR806	□	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	2.000	.000

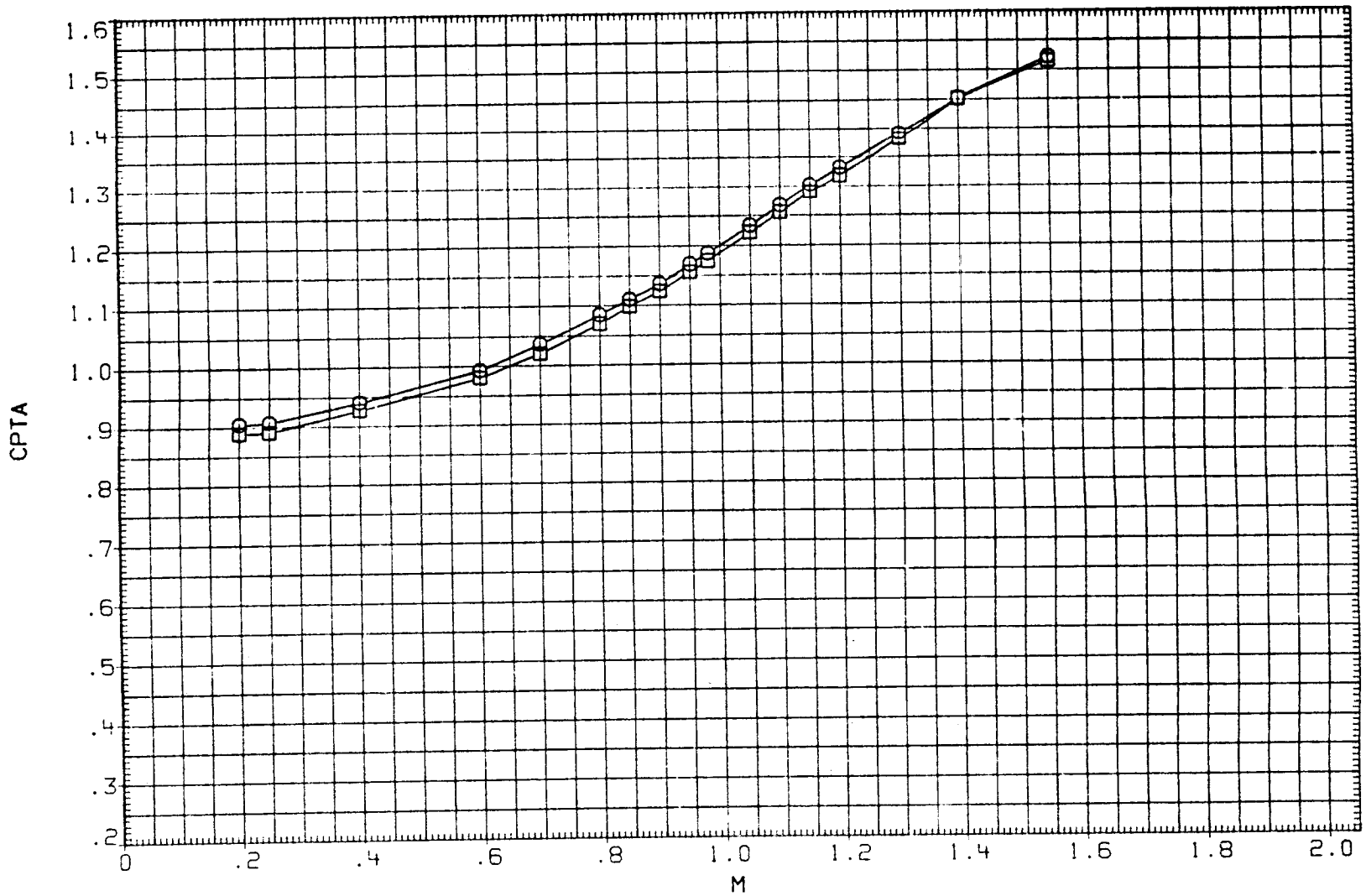


FIG. 20 0A232 SIDE PROBE CPTA VERSUS MACH NUMBER AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE

(B) ALPHA = 4.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVR804	○	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	.000	.000
AVR806	□	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	2.000	.000

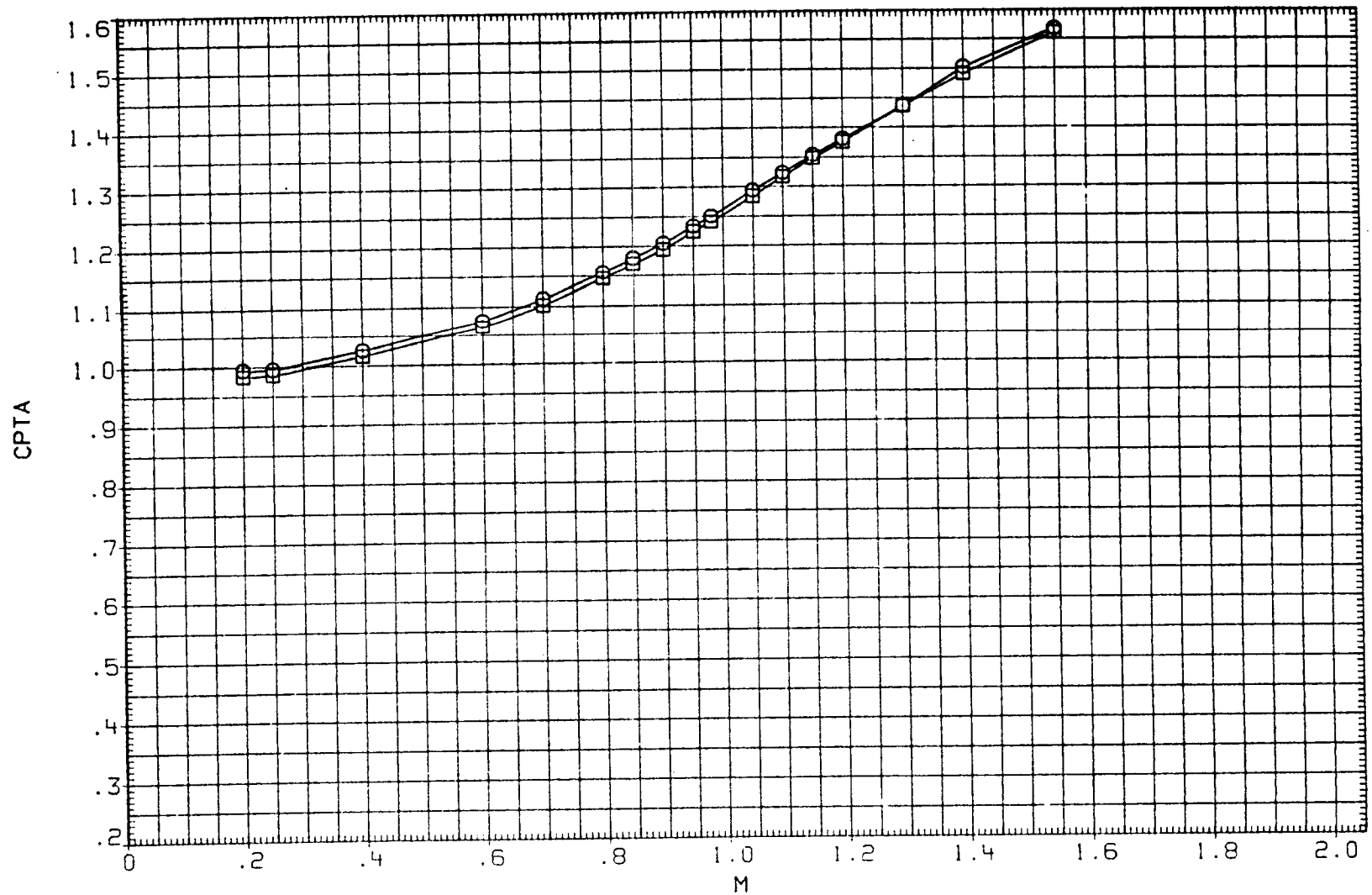


FIG. 20 0A232 SIDE PROBE CPTA VERSUS MACH NUMBER AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE

(C)ALPHA = 8.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVR804	○	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	.000	.000
AVR806	□	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	2.000	.000

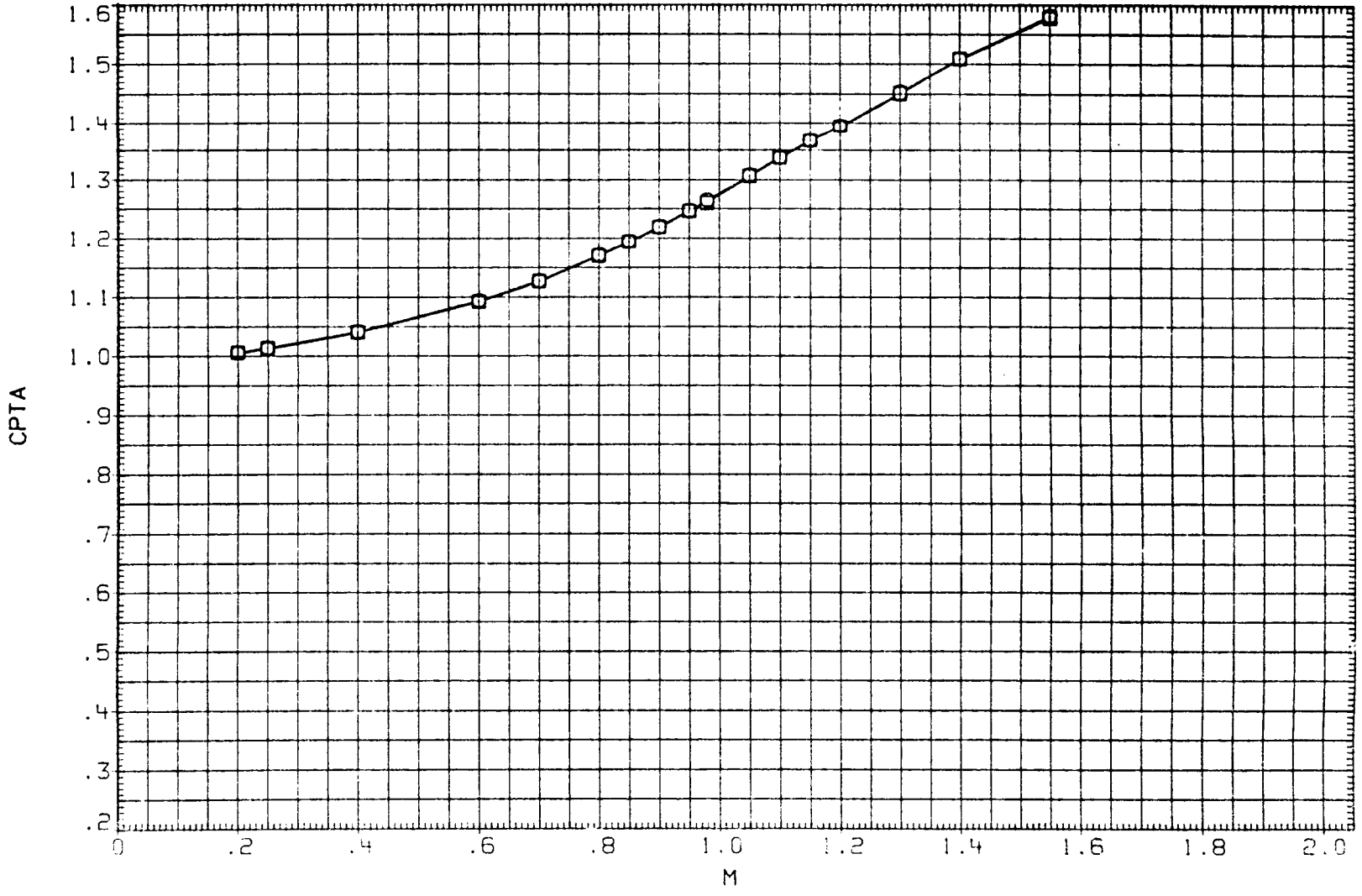


FIG. 20 0A232 SIDE PROBE CPTA VERSUS MACH NUMBER AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE

(D) ALPHA = 12.00 DATE 09 AUG 78 PAGE 92

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVR804	○	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	.000	.000
AVR806	□	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	2.000	.000

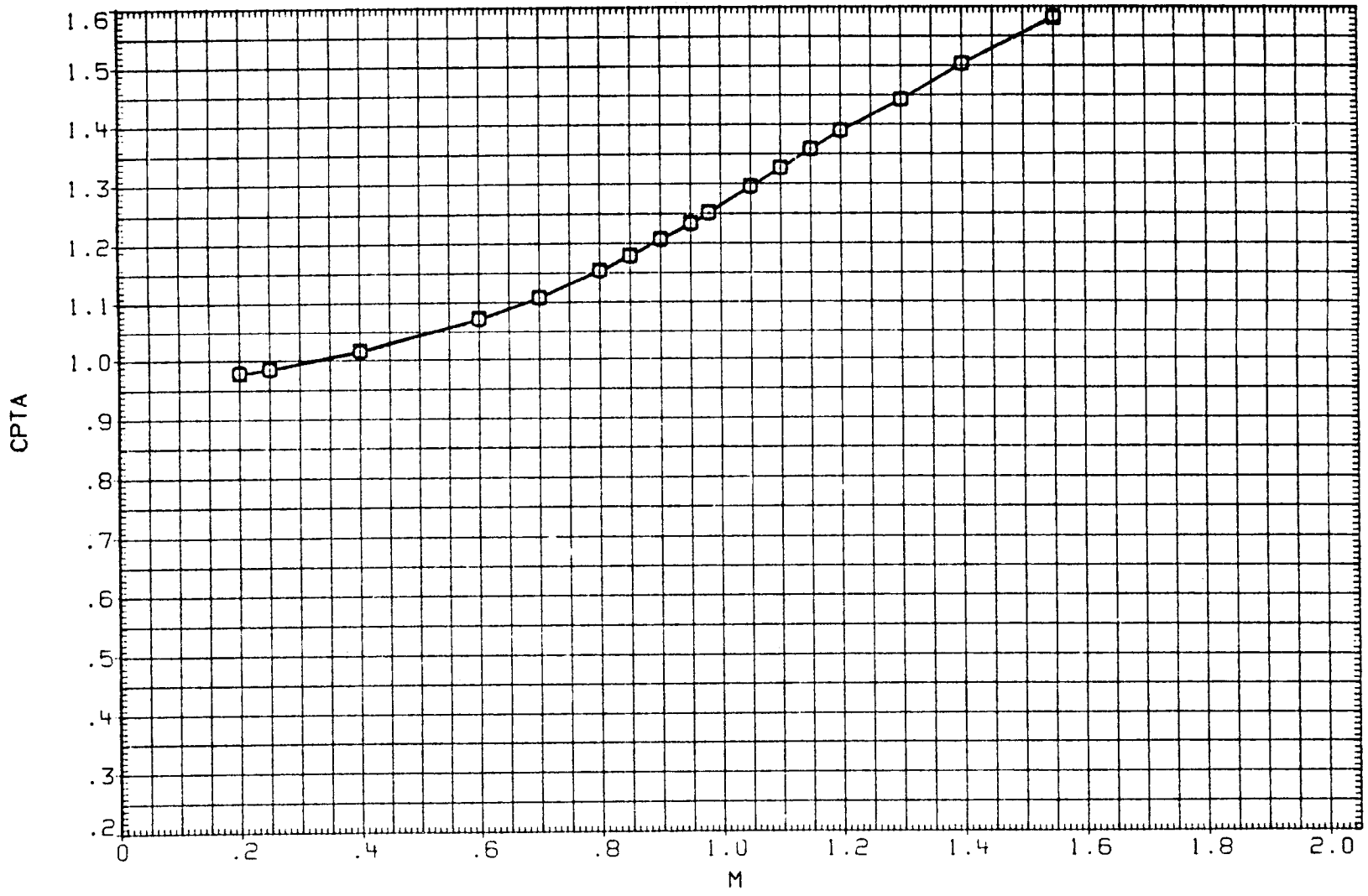


FIG. 20 0A232 SIDE PROBE CPTA VERSUS MACH NUMBER AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON RIGHT SIDE

(E)ALPHA = 16.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVR804	○	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S		.000	.000
AVR806	□	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S		2.000	.000

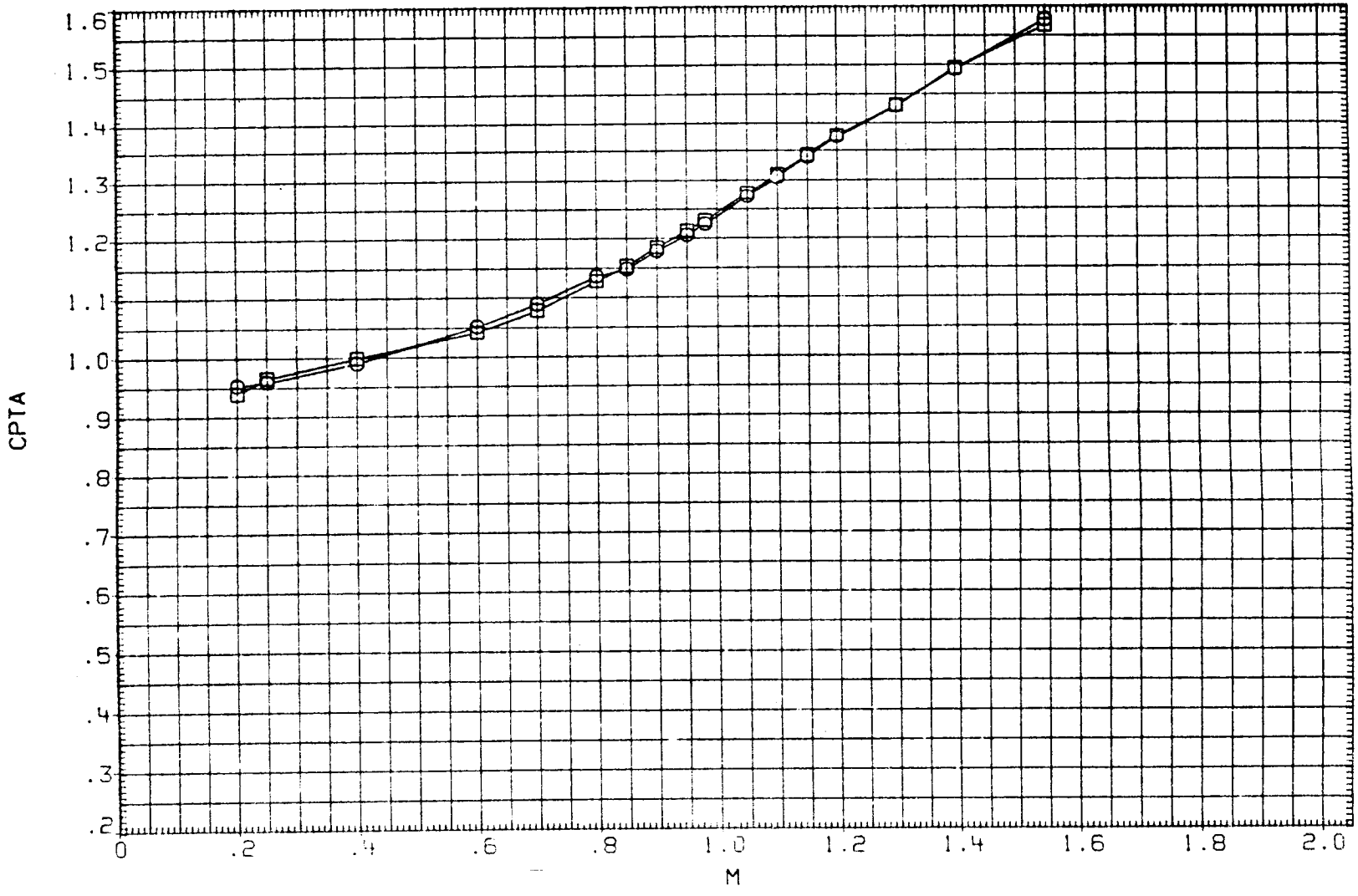


FIG. 20 0A232 SIDE PROBE CPTA VERSUS MACH NUMBER AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON RIGHT SIDE

(F) ALPHA = 18.00 DATE 09 AUG 78

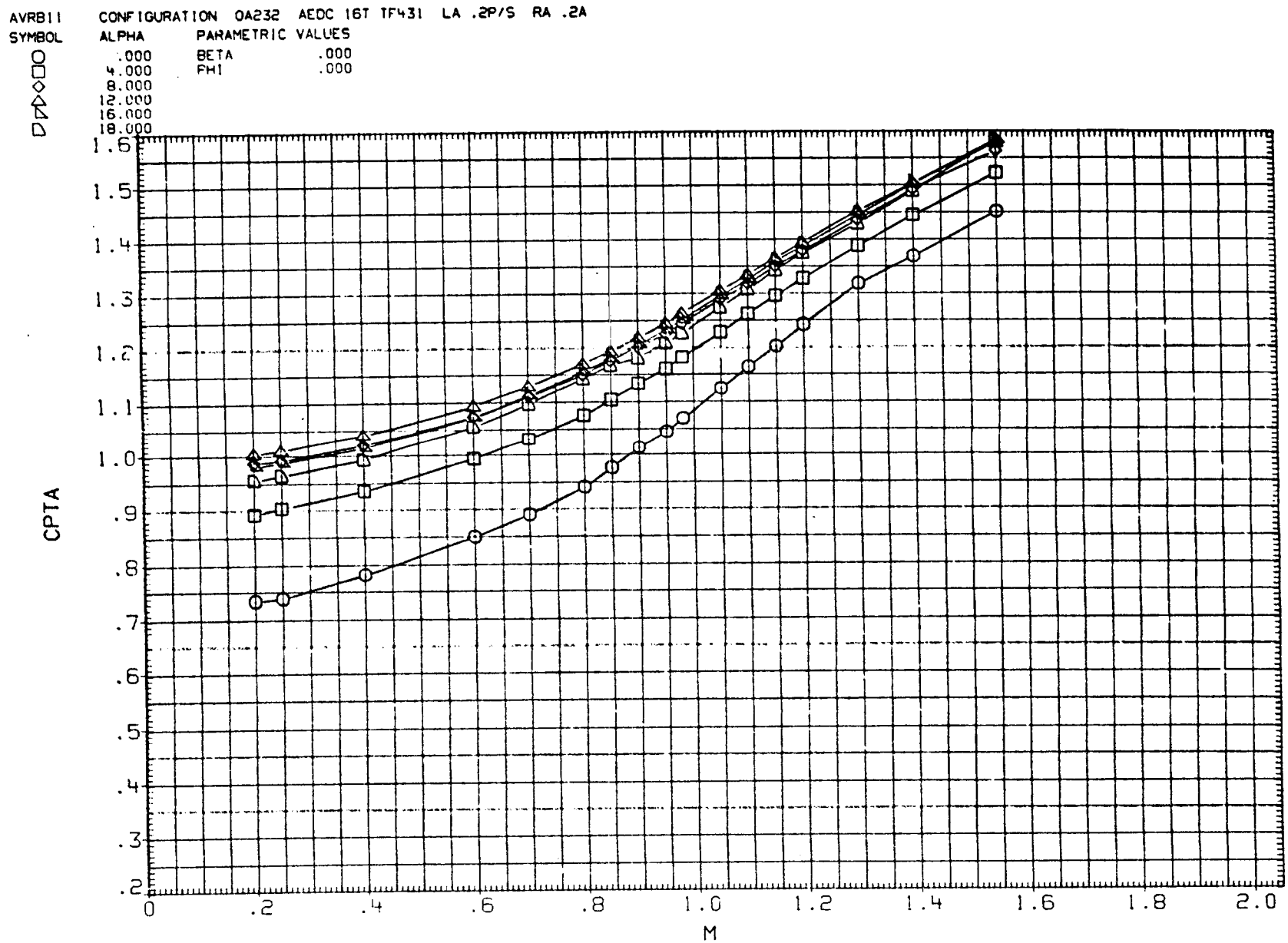


FIG. 21 0A232 SIDE PROBE CPTA VERSUS MACH NUMBER AT VARIOUS ALPHAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON LEFT SIDE
DATE 09 AUG 78

CONFIGURATION 0A232 AEDC 16T TF431 LA .2P/S RA .2A

SYMBOL ALPHA PARAMETRIC VALUES

D	.000	BETA	2.000
▷	4.000	PHI	.000
◇	8.000		
□	12.000		
○	16.000		
	18.000		

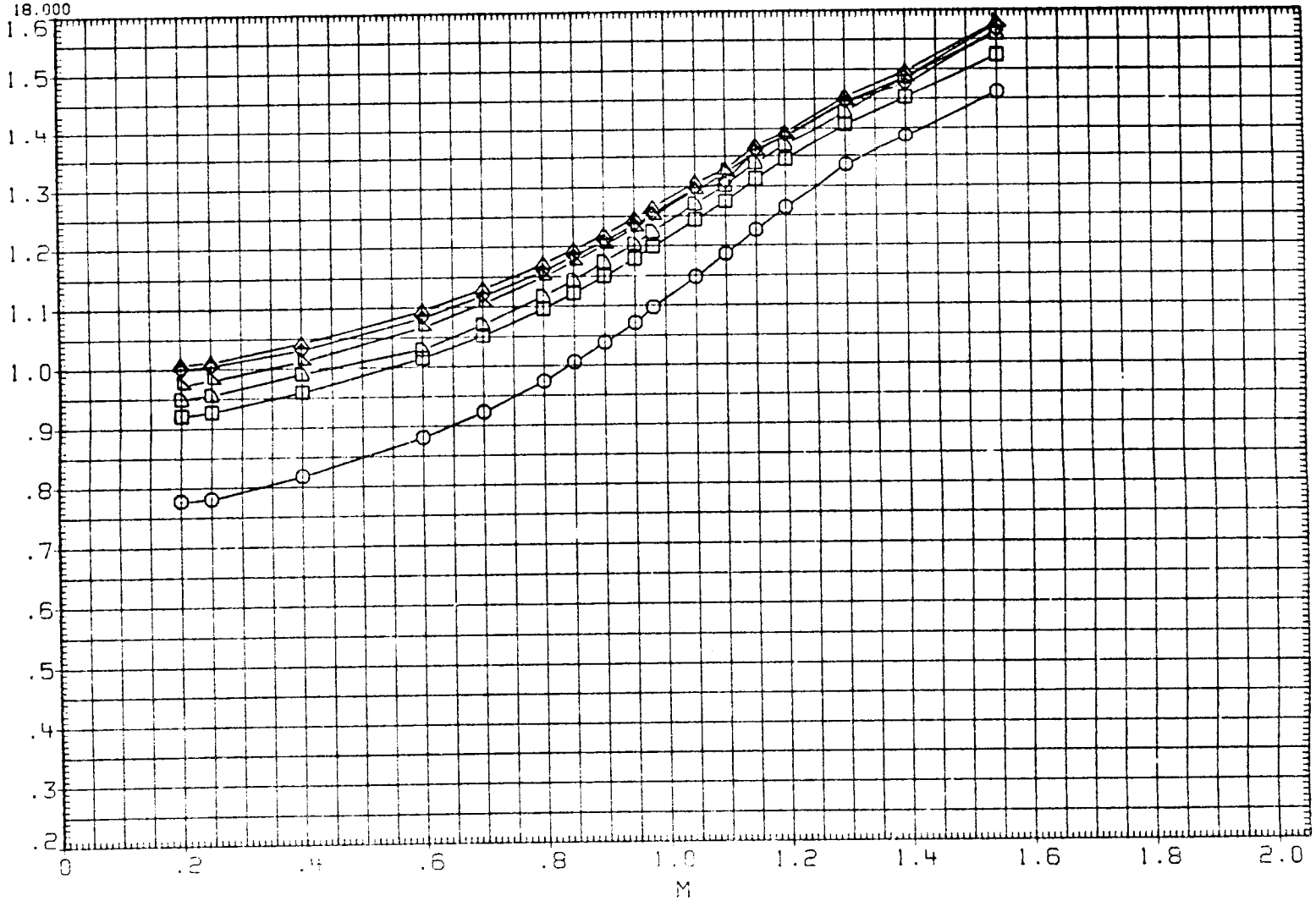


FIG. 21 0A232 SIDE PROBE CPTA VERSUS MACH NUMBER AT VARIOUS ALPHAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON LEFT SIDE

DATE 09 AUG 78

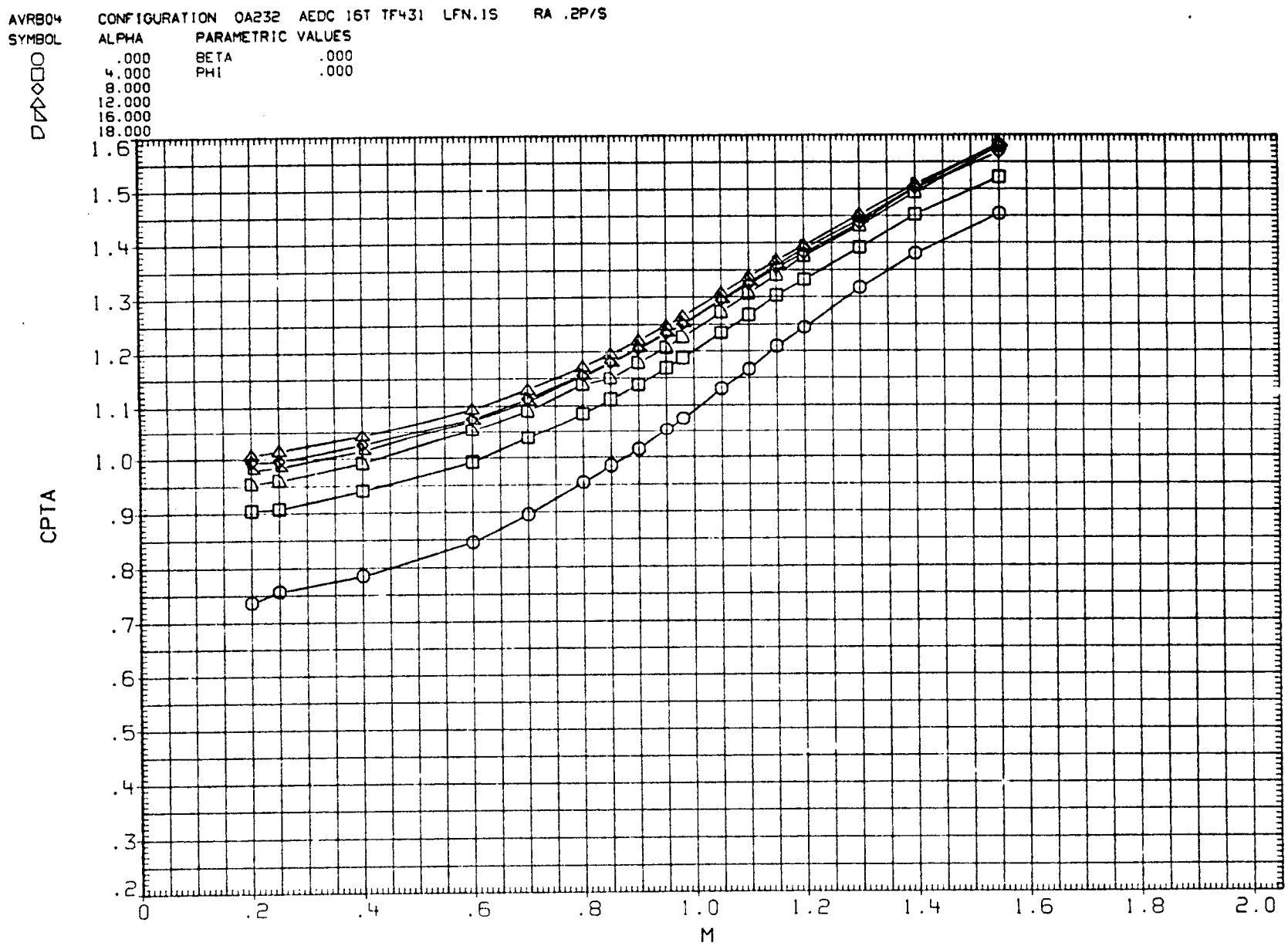


FIG. 22 OA232 SIDE PROBE CPTA VERSUS MACH NUMBER AT VARIOUS ALPHAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE
DATE 09 AUG 78

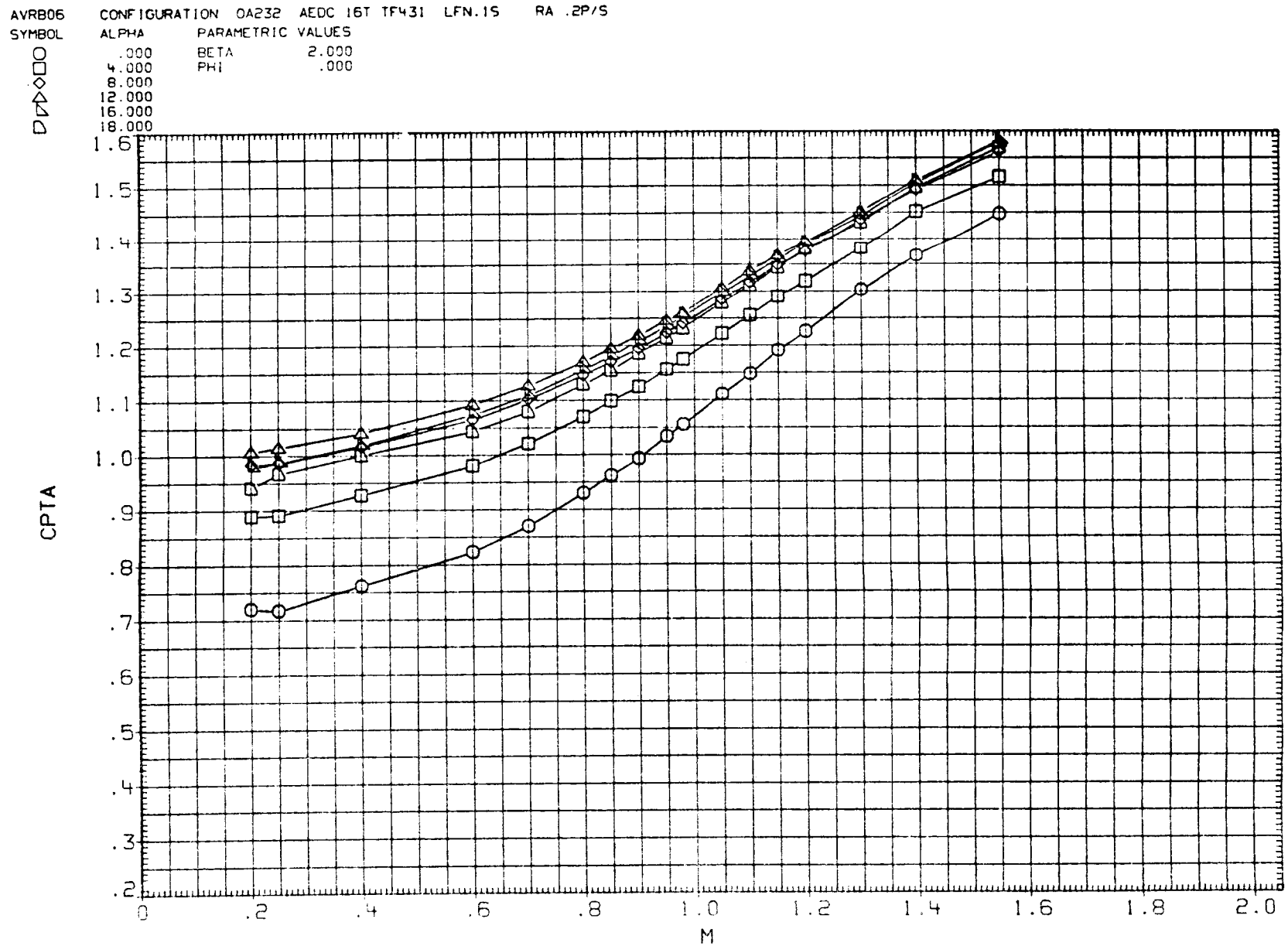


FIG. 22 0A232 SIDE PROBE CPTA VERSUS MACH NUMBER AT VARIOUS ALPHAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON RIGHT SIDE

DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
BVR104	○	0A232	AEDC	16T	TF431	LFN.1S RA .2P/S	.000	.000
BVR108	□	0A232	AEDC	16T	TF431	LFN.1S RA .2P/S	.000	.000
BVR110	◇	0A232	AEDC	16T	TF431	LFN.1S RA .2P/S	2.000	.000

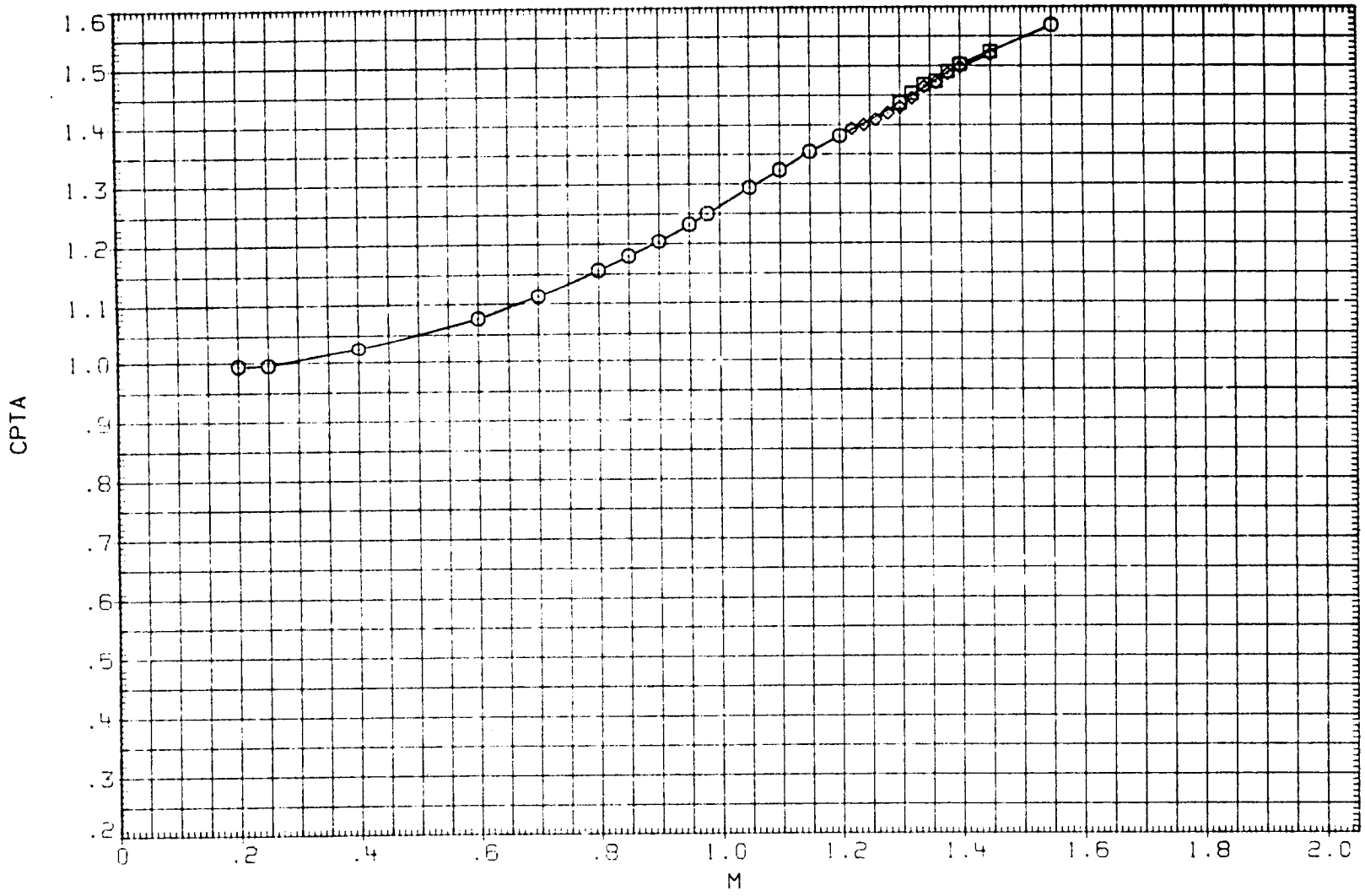


FIG. 23 0A232 SIDE PROBE CPTA VERSUS MACH NUMBER FINE CUT
DATA INTERPOLATED WITH MACH, ALPHA PROBE ON RIGHT SIDE

(A) ALPHA = 8.00 DATE 07 APR 80

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
BVR104	○	OA232	AEDC 16T TF431	LEN.IS	RA .2P/S	.000	.000
BVR108	□	OA232	AEDC 16T TF431	LEN.IS	RA .2P/S	.000	.000
BVR110	◇	OA232	AEDC 16T TF431	LEN.IS	RA .2P/S	2.000	.000

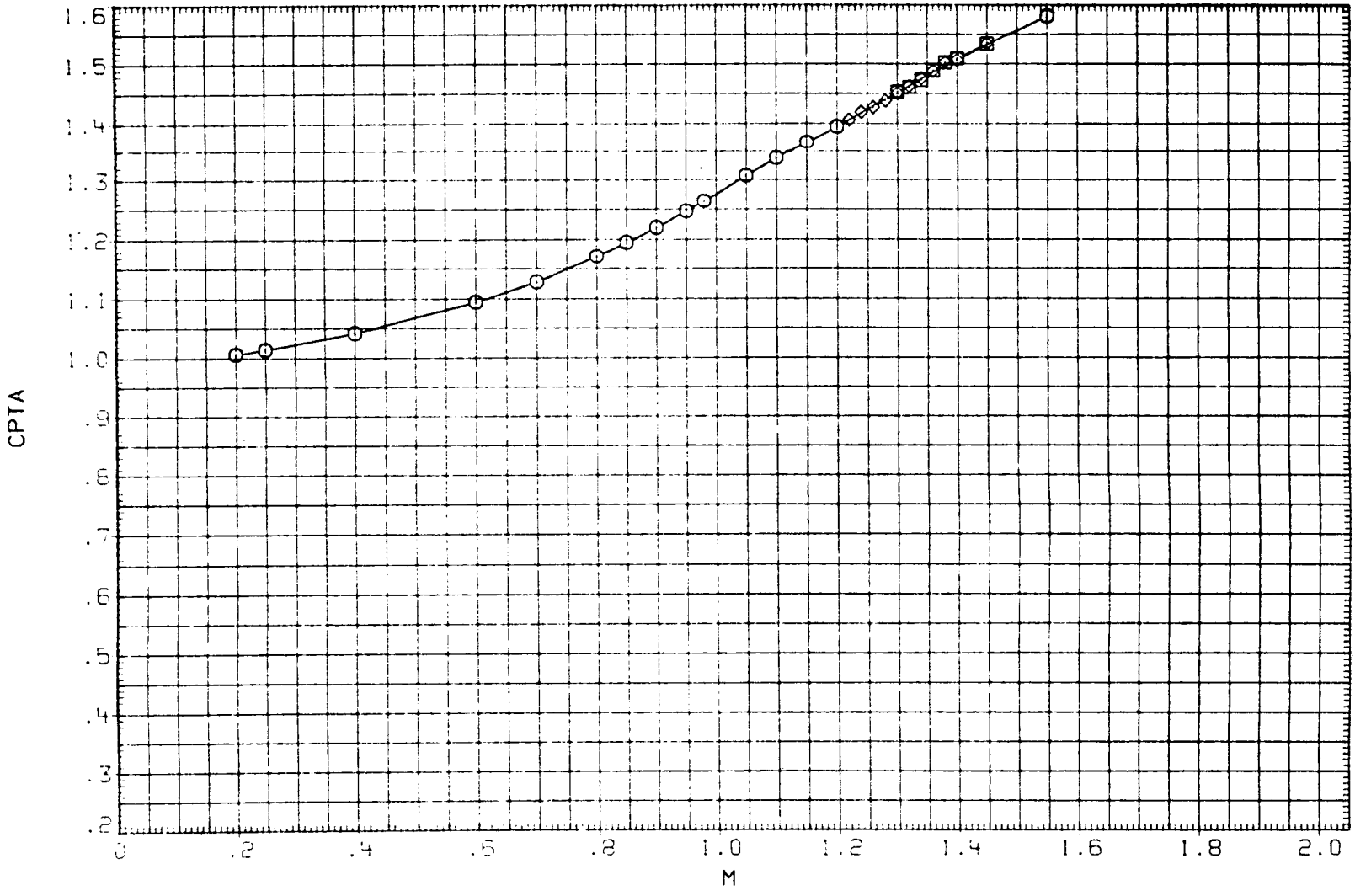


FIG. 23 OA232 SIDE PROBE CPTA VERSUS MACH NUMBER FINE CUT
DATA INTERPOLATED WITH MACH, ALPHA PROBE ON RIGHT SIDE

(B) ALPHA = 12.00 DATE 07 APR 80

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
BVR104	○	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	.000	.000
BVR108	□	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	.000	.000
BVR110	◇	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	2.000	.000

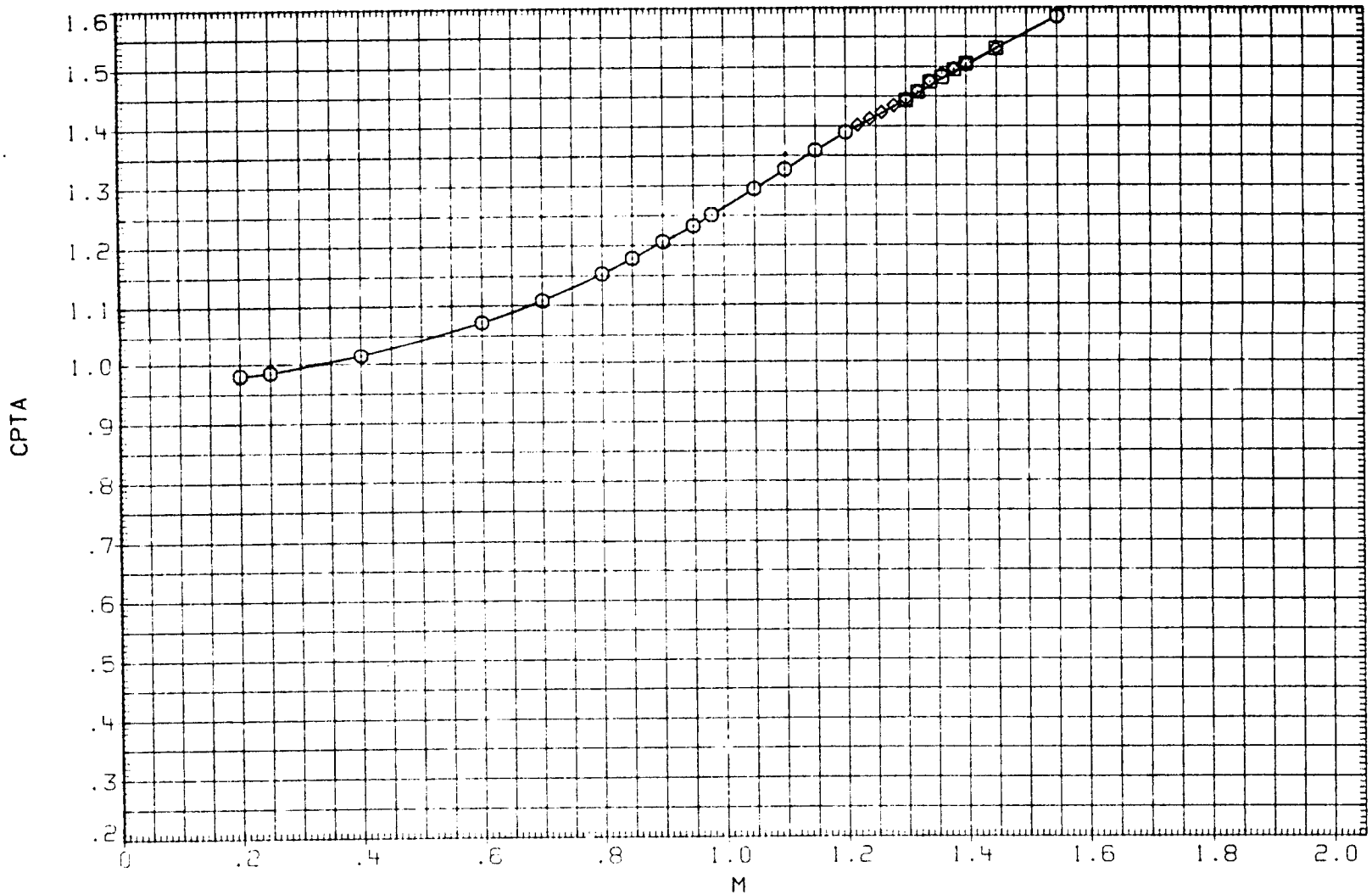


FIG. 23 0A232 SIDE PROBE CPTA VERSUS MACH NUMBER FINE CUT
DATA INTERPOLATED WITH MACH,ALPHA PROBE ON RIGHT SIDE

(C)ALPHA = 16.00 DATE 07 APR 80

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
BVR104	○	0A232	AEDC	16T	TF431	LFN.1S	RA .2P/S	.000	.000
BVR108	□	0A232	AEDC	16T	TF431	LFN.1S	RA .2P/S	.000	.000
BVR110	◇	0A232	AEDC	16T	TF431	LFN.1S	RA .2P/S	2.000	.000

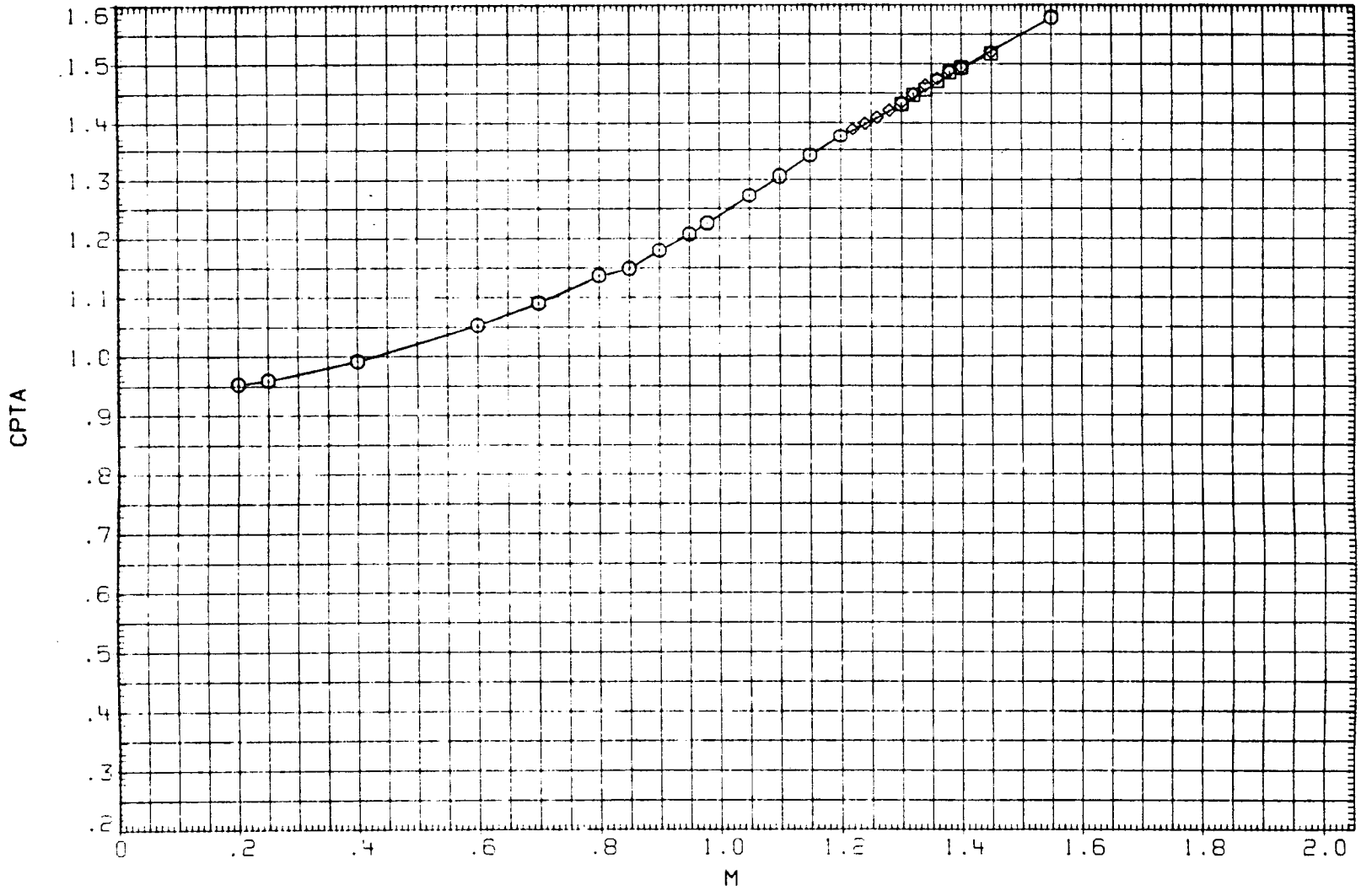


FIG. 23 0A232 SIDE PROBE CPTA VERSUS MACH NUMBER FINE CUT
DATA INTERPOLATED WITH MACH, ALPHA PROBE ON RIGHT SIDE

(D) ALPHA 18.00 DATE 07 APR 80

DATA SET	SYMBOL	CONFIGURATION		BETA	PHI
AVRJ11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A		.000	.000
AVRI13	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	INV	.000	180.000

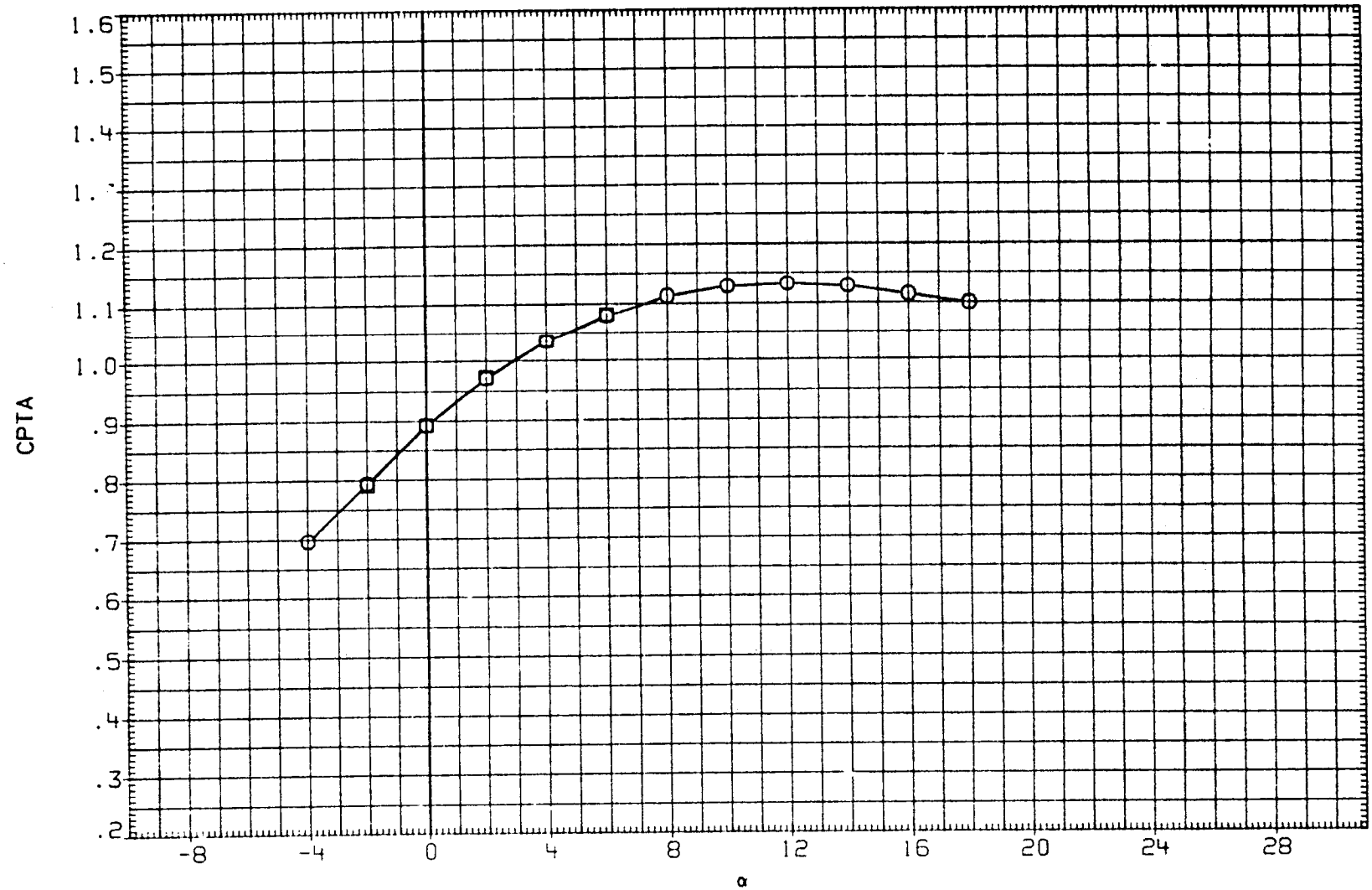


FIG. 24 0A232 SIDE PROBE CPTA VERSUS ALPHA REPEATABILITY, INVERTED
DATA INTERPOLATED WITH MACH, ALPHA PROBE ON LEFT SIDE

(A)MACH = .70 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVR105	○	DATA NOT AVAILABLE					.000	.000
AVR107	□	0A232	AEDC 16T TF431	LFN.15	RA .2P/S	INV	.000	180.000
AVRJ09	◇	0A232	AEDC 16T TF431	LFN.15	RA .2P/S		.000	.000

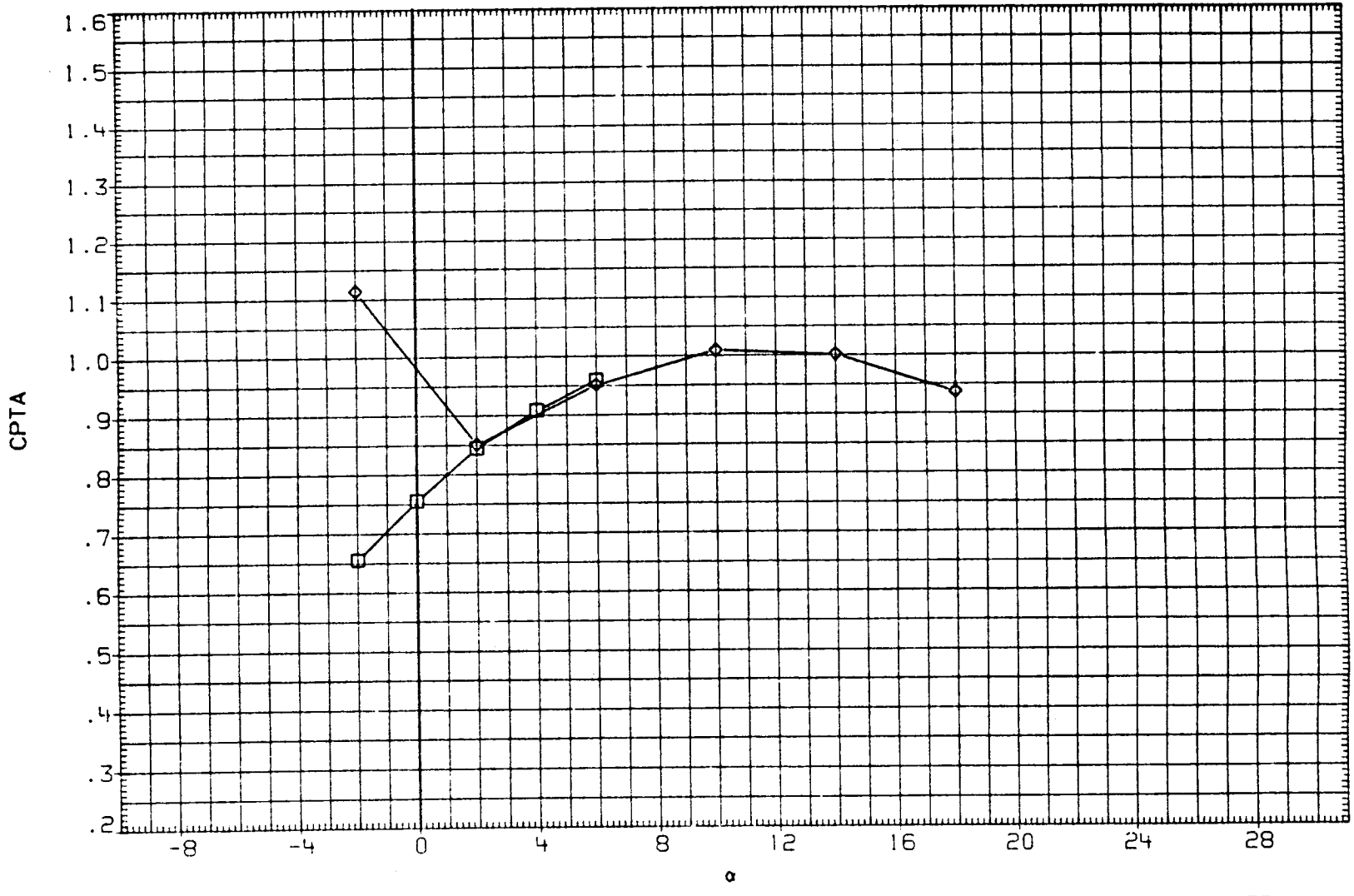


FIG. 25 0A232 SIDE PROBE CPTA VERSUS ALPHA REPEATABILITY, INVERTED PROBE ON RIGHT SIDE
DATA INTERPOLATED WITH MACH, ALPHA

(A) MACH = .20 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVR105	○	DATA NOT AVAILABLE				.000	.000
AVR107	□	0A232 AEDC 16T TF431	LFN.1S	RA .2P/S	INV	.000	180.000
AVRJ09	◇	DATA NOT AVAILABLE				.000	.000

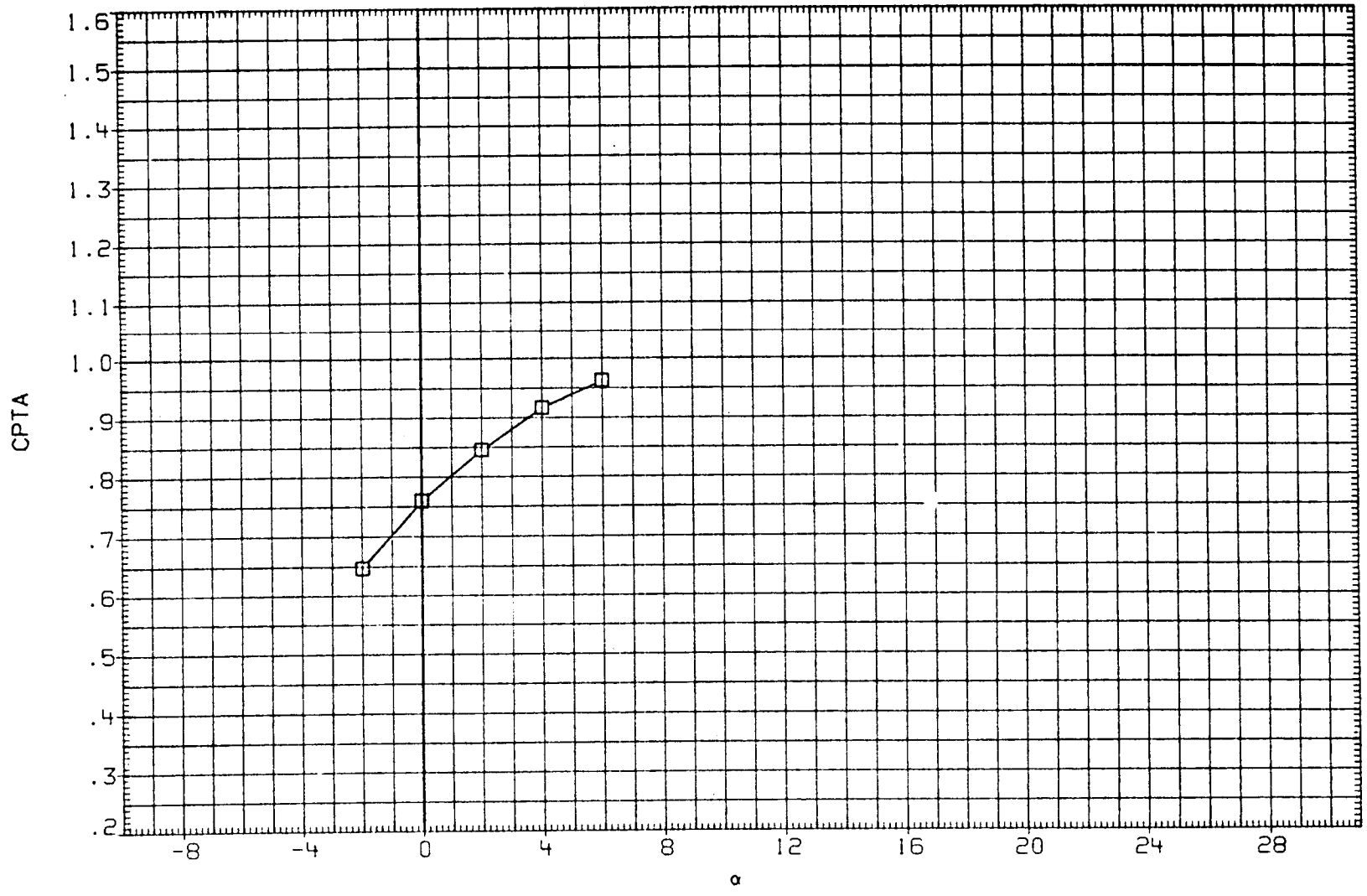


FIG. 25 0A232 SIDE PROBE CPTA VERSUS ALPHA REPEATABILITY, INVERTED
DATA INTERPOLATED WITH MACH, ALPHA PROBE ON RIGHT SIDE

(B)MACH = .25 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVRI05	○	DATA NOT AVAILABLE					.000	.000
AVRI07	□	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	INV	.000	180.000
AVRJ09	◇	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S		.000	.000

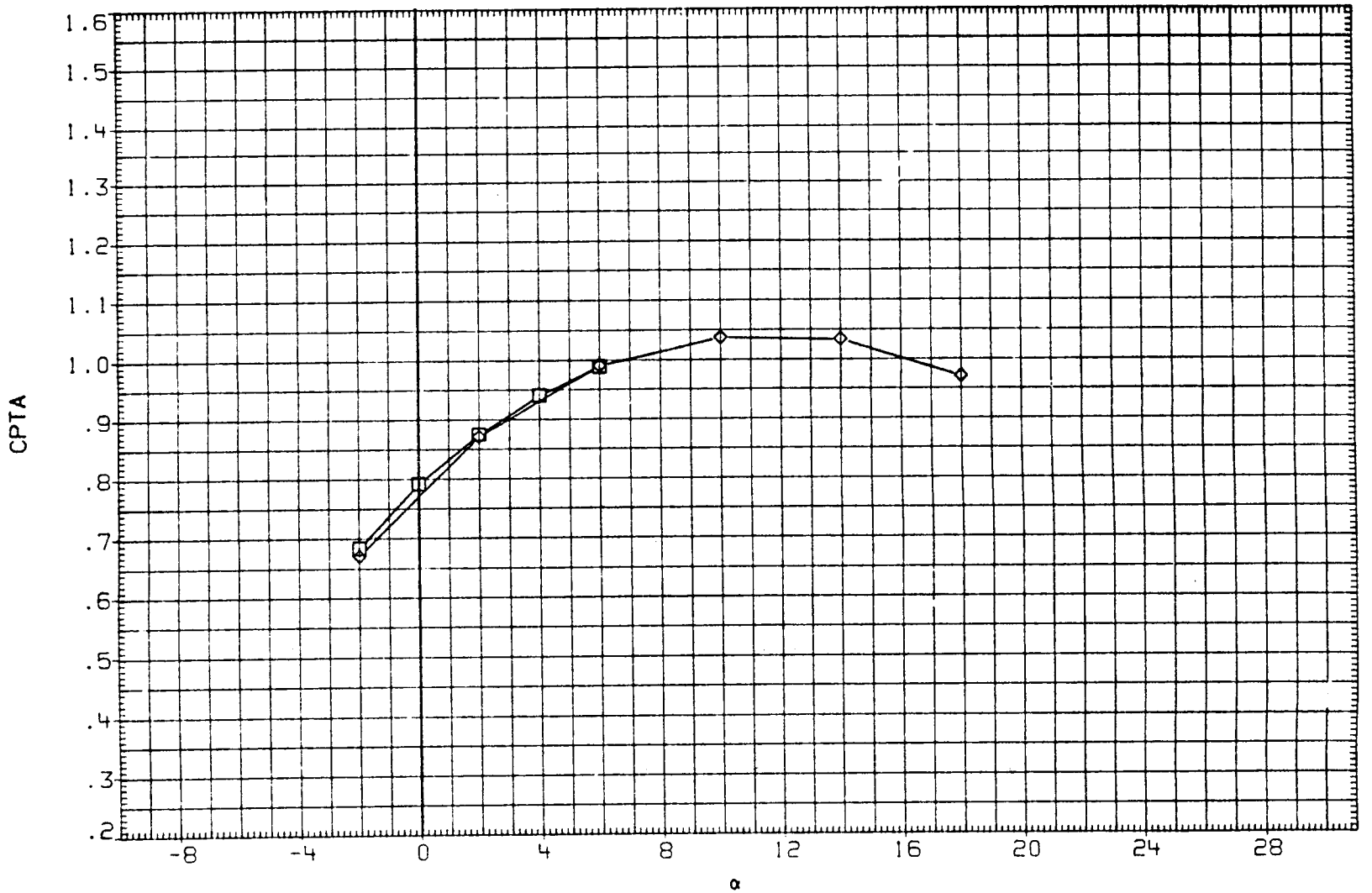


FIG. 25 0A232 SIDE PROBE CPTA VERSUS ALPHA REPEATABILITY, INVERTED PROBE ON RIGHT SIDE
DATA INTERPOLATED WITH MACH, ALPHA

(C)MACH = .40 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVRI05	○	DATA NOT AVAILABLE					.000	.000
AVRI07	□	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	INV	.000	180.000
AVRJ09	◇	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S		.000	.000

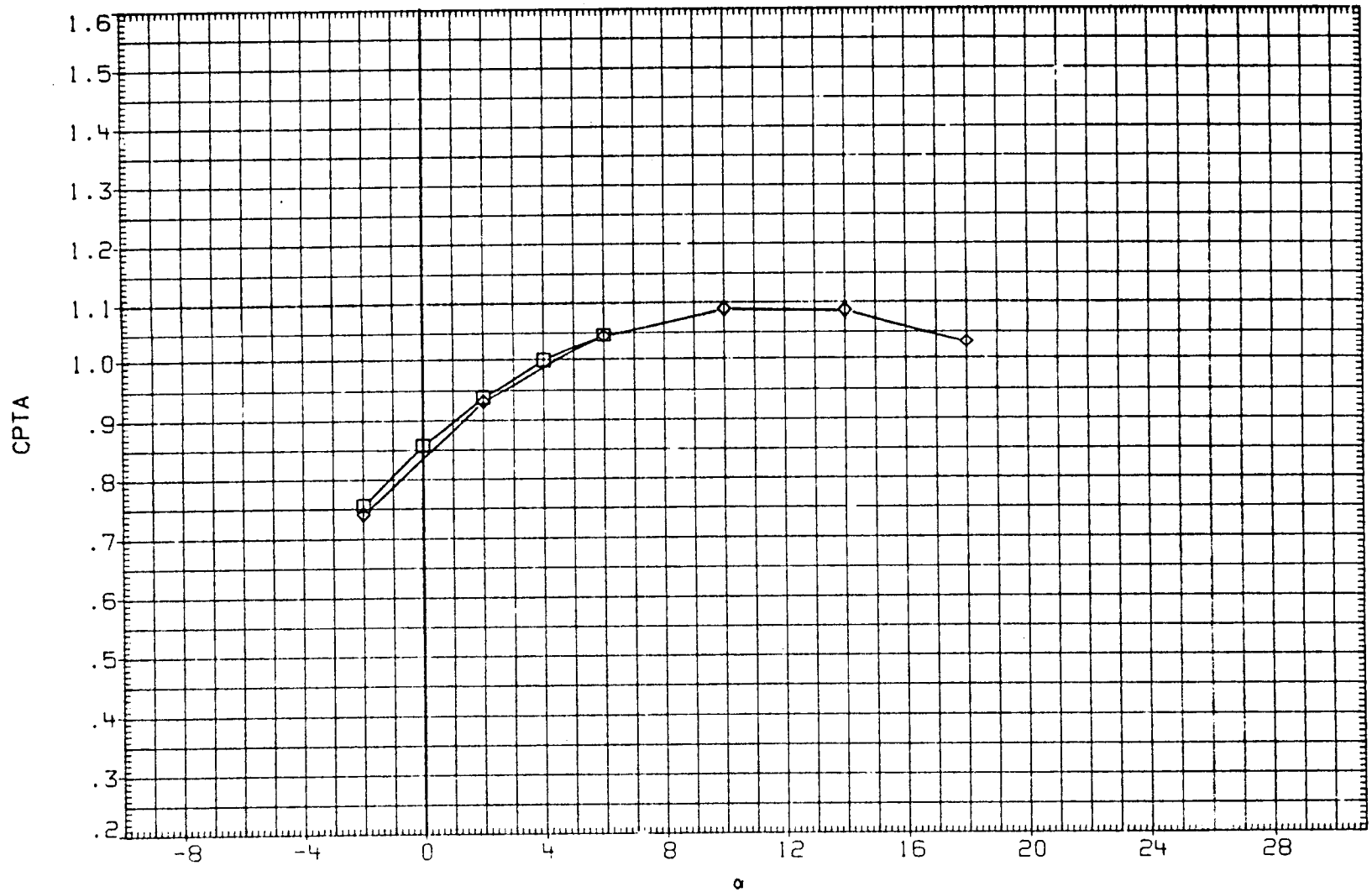


FIG. 25 0A232 SIDE PROBE CPTA VERSUS ALPHA REPEATABILITY, INVERTED PROBE ON RIGHT SIDE
DATA INTERPOLATED WITH MACH, ALPHA

(D)MACH = .60 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRI05	○	DATA NOT AVAILABLE	.000	.000
AVRI07	□	DATA NOT AVAILABLE	.000	180.000
AVRJ09	◇	0A232 AEDC 16T TF431 LFN.15 RA .2P/S	.000	.000

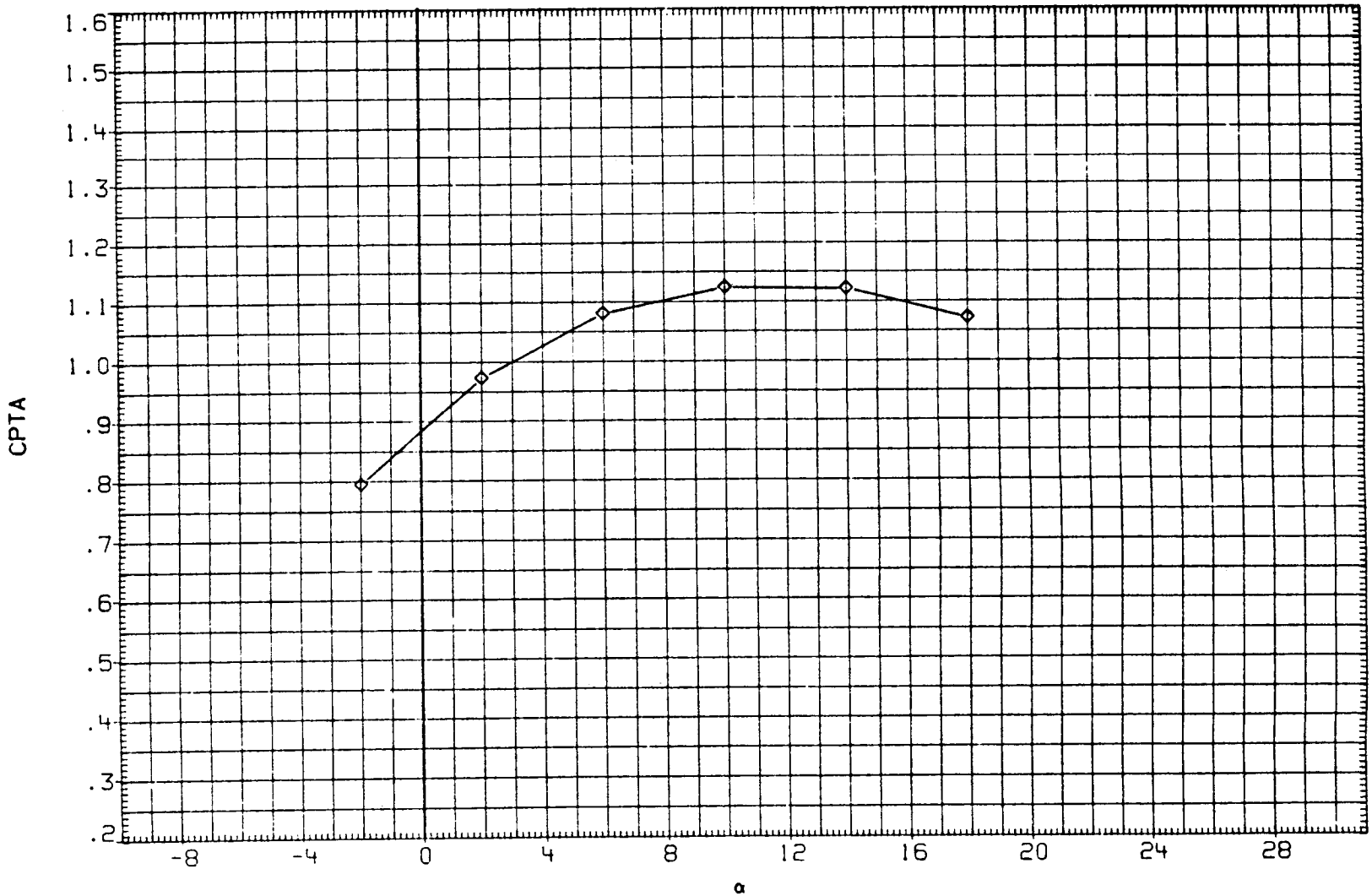


FIG. 25 0A232 SIDE PROBE CPTA VERSUS ALPHA REPEATABILITY, INVERTED PROBE ON RIGHT SIDE
DATA INTERPOLATED WITH MACH, ALPHA

(E)MACH = .70 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVRI05	○	DATA NOT AVAILABLE					.000	.000
AVRI07	□	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	INV	.000	180.000
AVRJ09	◇	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S		.000	.000

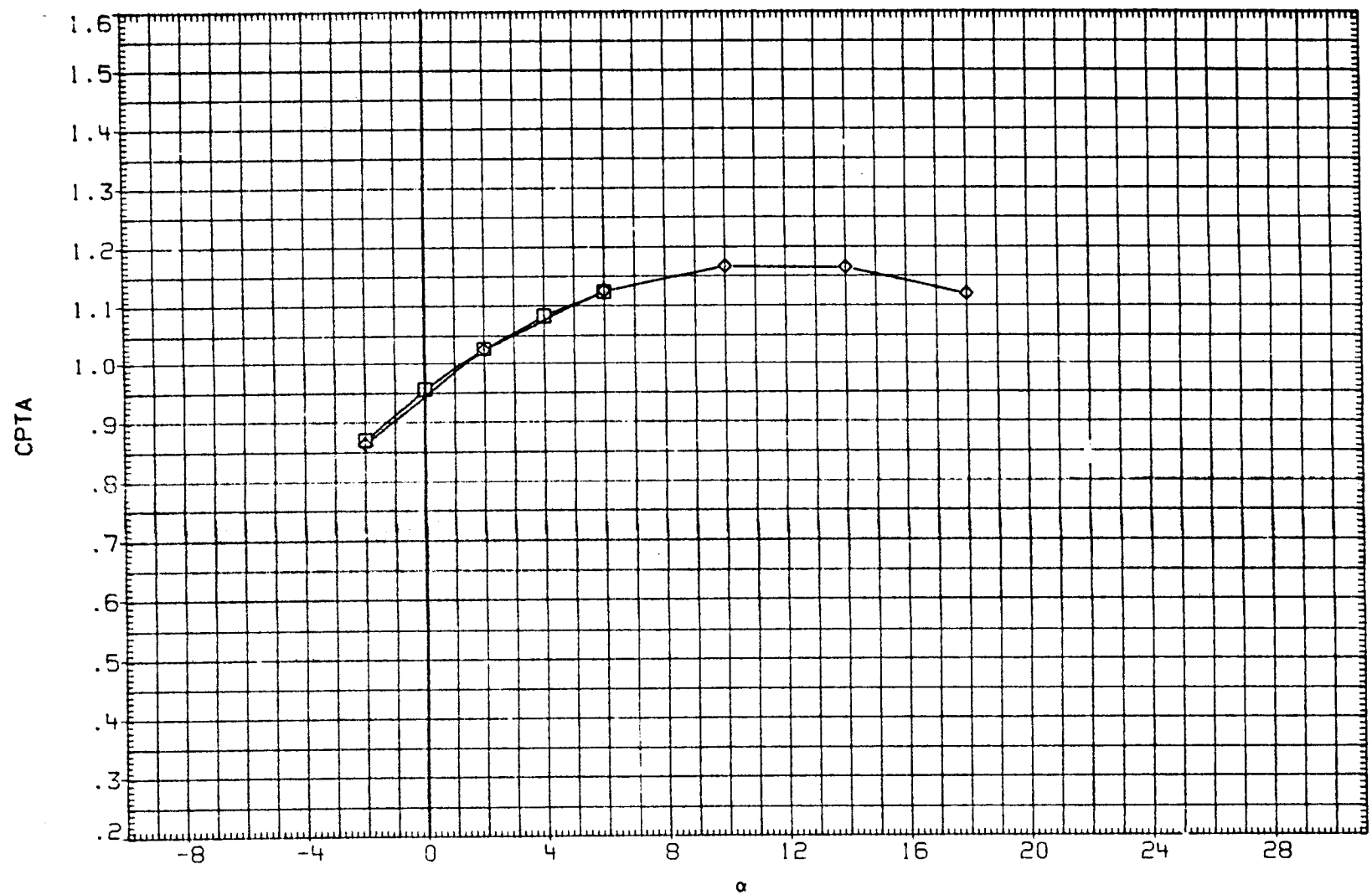


FIG. 25 0A232 SIDE PROBE CPTA VERSUS ALPHA REPEATABILITY, INVERTED
DATA INTERPOLATED WITH MACH, ALPHA PROBE ON RIGHT SIDE

(F)MACH = .80 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRI05	○	DATA NOT AVAILABLE				.000	.000
AVRI07	□	OA232 AEDC 16T TF431	LFN.IS	RA .2P/S	INV	.000	180.000
AVRJ09	◇	DATA NOT AVAILABLE				.000	.000

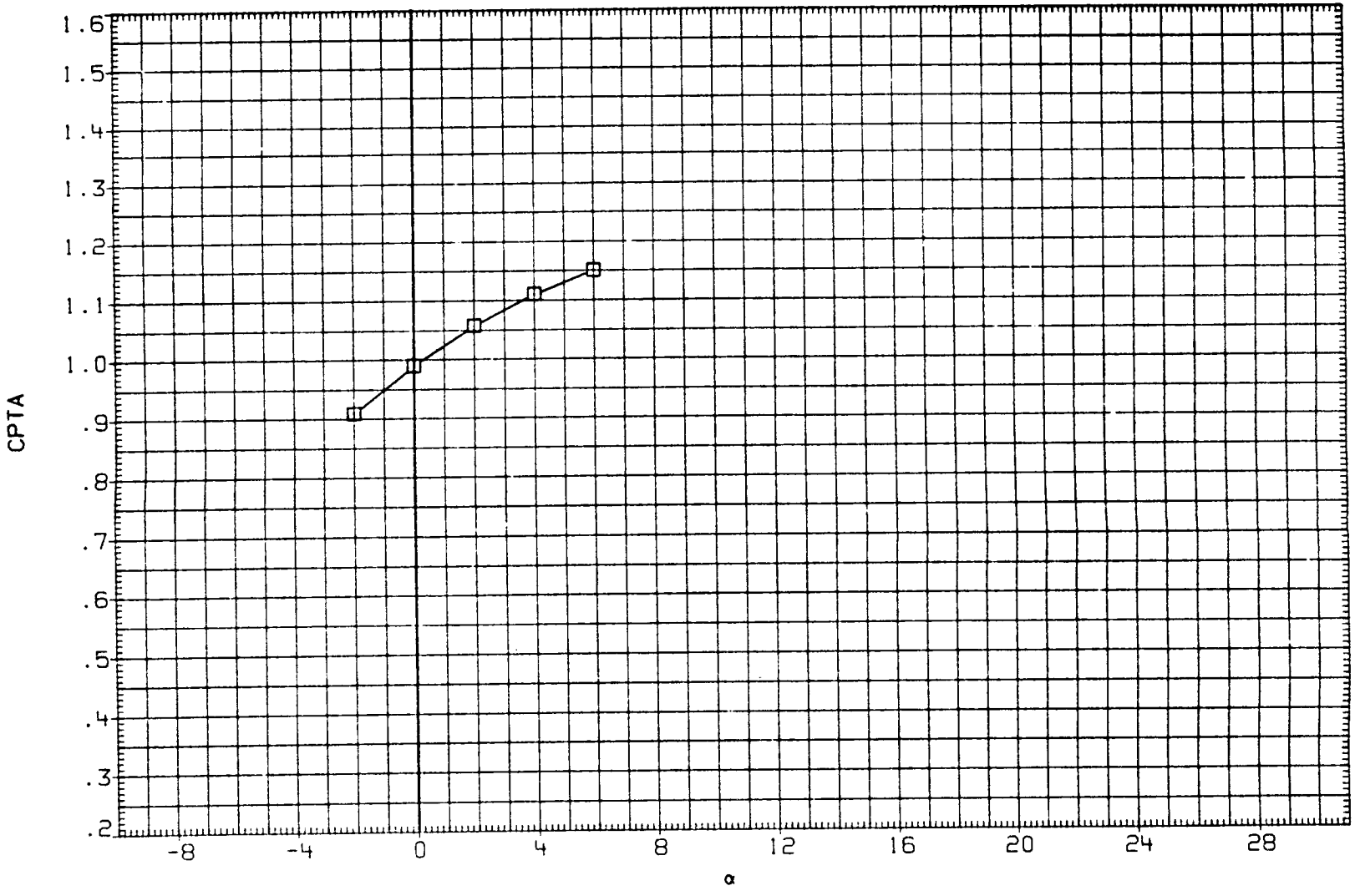


FIG. 25 OA232 SIDE PROBE CPTA VERSUS ALPHA REPEATABILITY, INVERTED
DATA INTERPOLATED WITH MACH, ALPHA PROBE ON RIGHT SIDE

(G)MACH = .85 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION		BETA	PHI
AVR105	○	0A232 AEDC 16T TF431 LFN.1S	RA .2P/S LOW RN	.000	.000
AVR107	□	DATA NOT AVAILABLE		.000	180.000
AVRJ09	◇	0A232 AEDC 16T TF431 LFN.1S	RA .2P/S	.000	.000

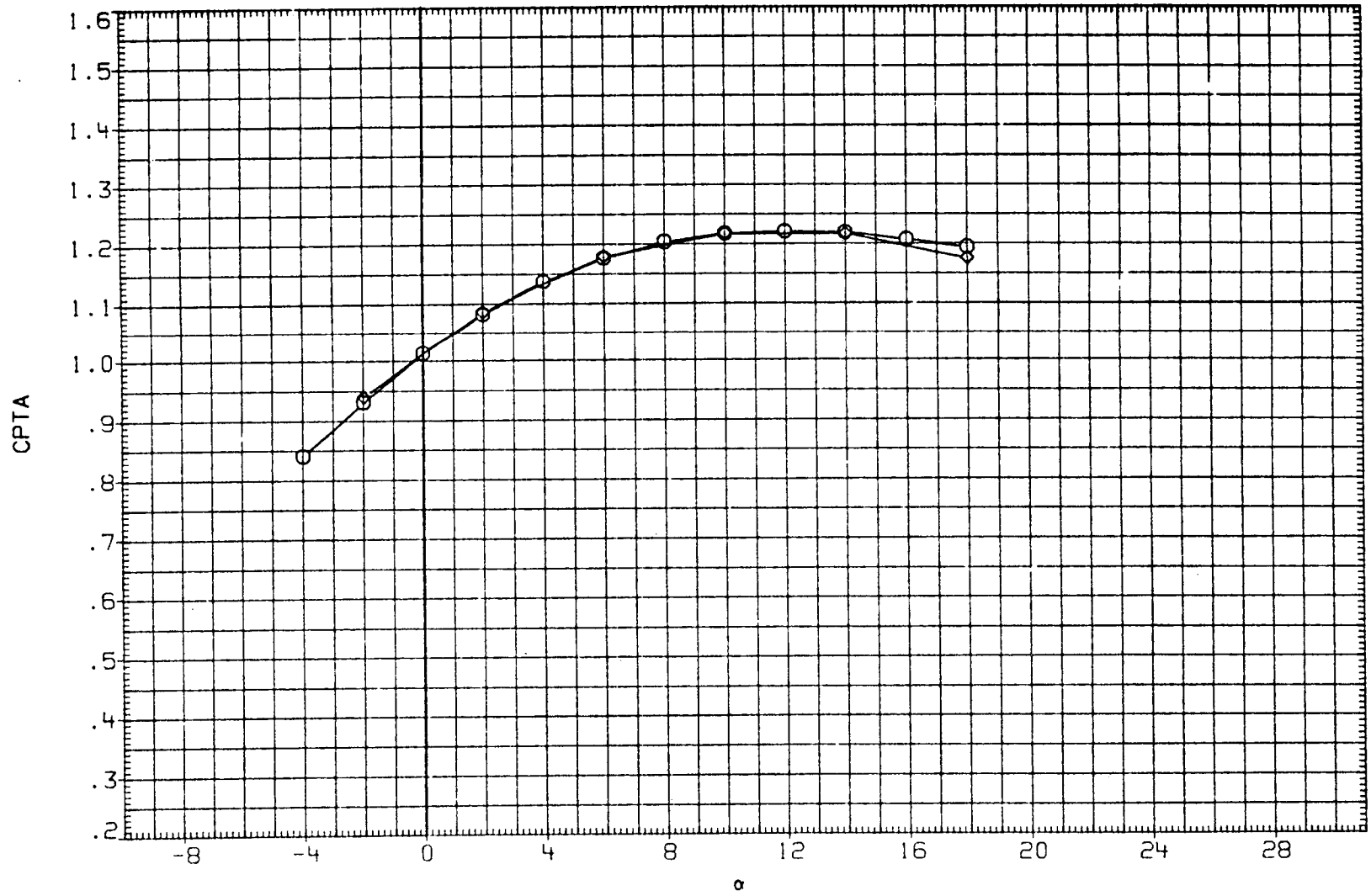


FIG. 25 0A232 SIDE PROBE CPTA VERSUS ALPHA REPEATABILITY, INVERTED
DATA INTERPOLATED WITH MACH, ALPHA PROBE ON RIGHT SIDE

(H) MACH = .90 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVRI05	○	DATA NOT AVAILABLE					.000	.000
AVRI07	□	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	INV	.000	180.000
AVRJ09	◇	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S		.000	.000

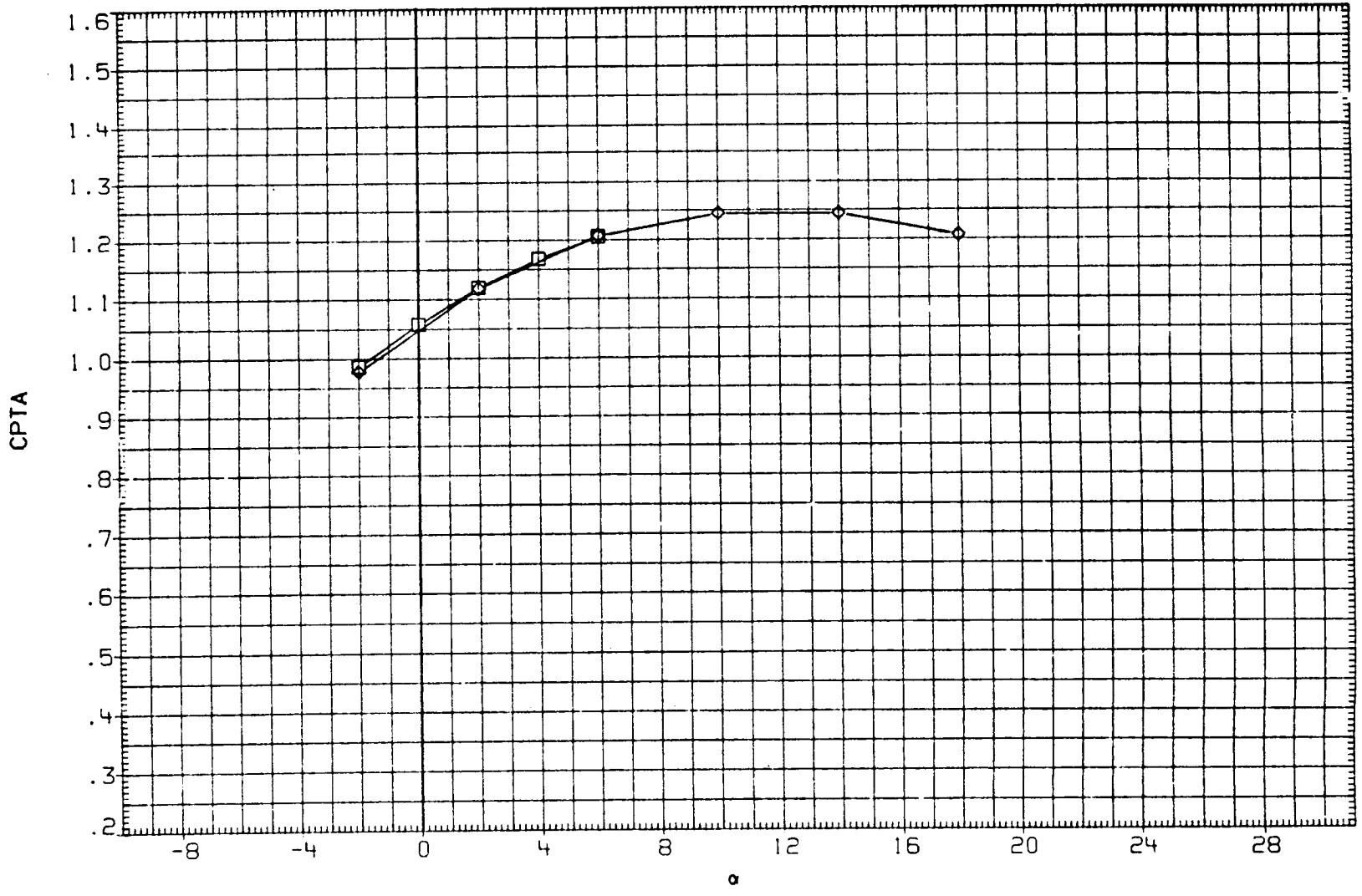


FIG. 25 0A232 SIDE PROBE CPTA VERSUS ALPHA REPEATABILITY, INVERTED
DATA INTERPOLATED WITH MACH, ALPHA PROBE ON RIGHT SIDE

(I)MACH = .95 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVRI05	○	DATA NOT AVAILABLE					.000	.000
AVRI07	□	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	INV	.000	180.000
AVRJ09	◇	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S		.000	.000

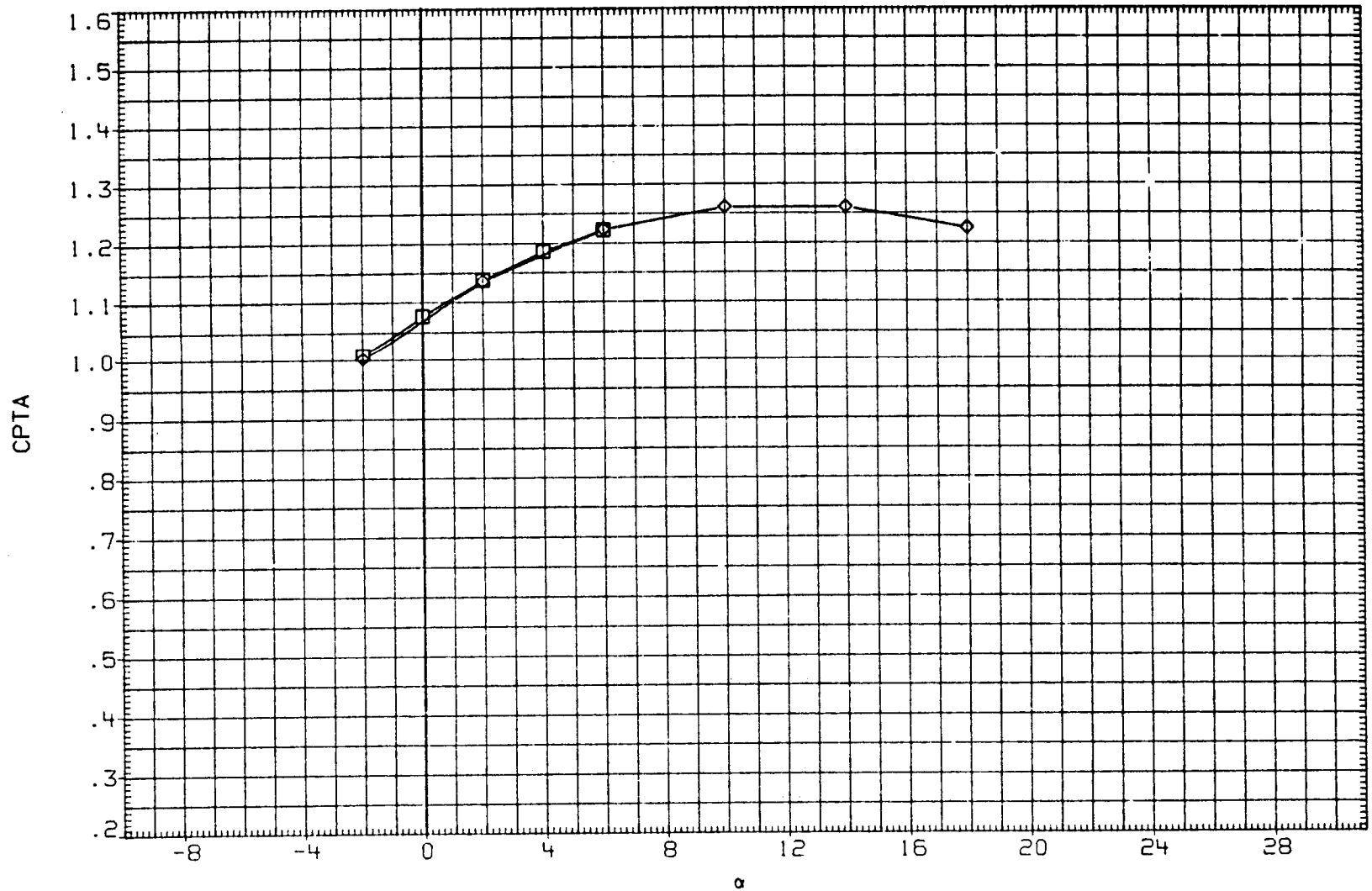


FIG. 25 0A232 SIDE PROBE CPTA VERSUS ALPHA REPEATABILITY, INVERTED
DATA INTERPOLATED WITH MACH, ALPHA PROBE ON RIGHT SIDE

(J)MACH = .98 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVR105	○	DATA NOT AVAILABLE					.000	.000
AVR107	□	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	INV	.000	180.000
AVRJ09	◇	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S		.000	.000

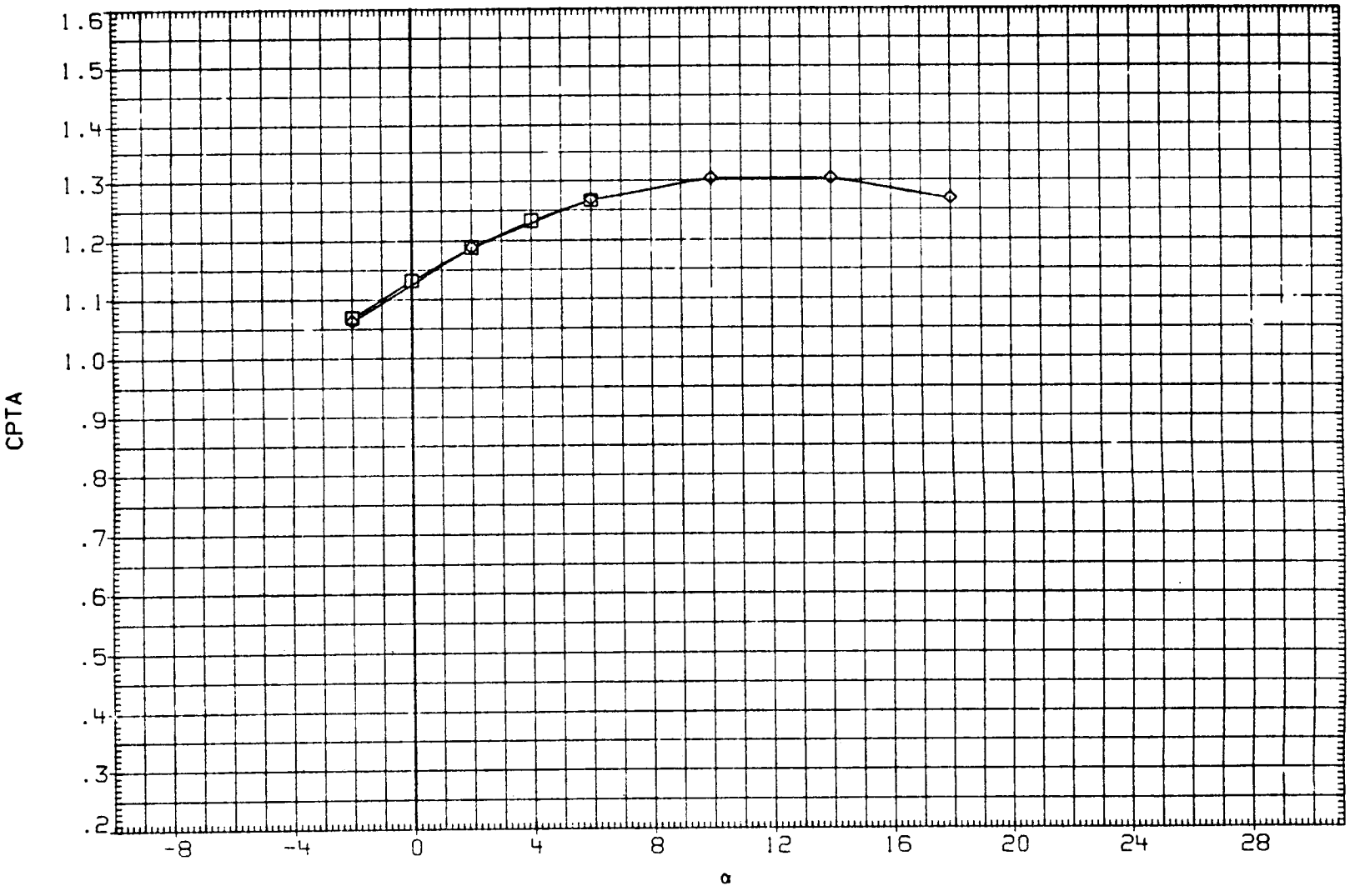


FIG. 25 0A232 SIDE PROBE CPTA VERSUS ALPHA REPEATABILITY, INVERTED
DATA INTERPOLATED WITH MACH, ALPHA PROBE ON RIGHT SIDE

(K)MACH = 1.05 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVR105	○	DATA NOT AVAILABLE					.000	.000
AVR107	□	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	INV	.000	180.000
AVRJ09	◇	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S		.000	.000

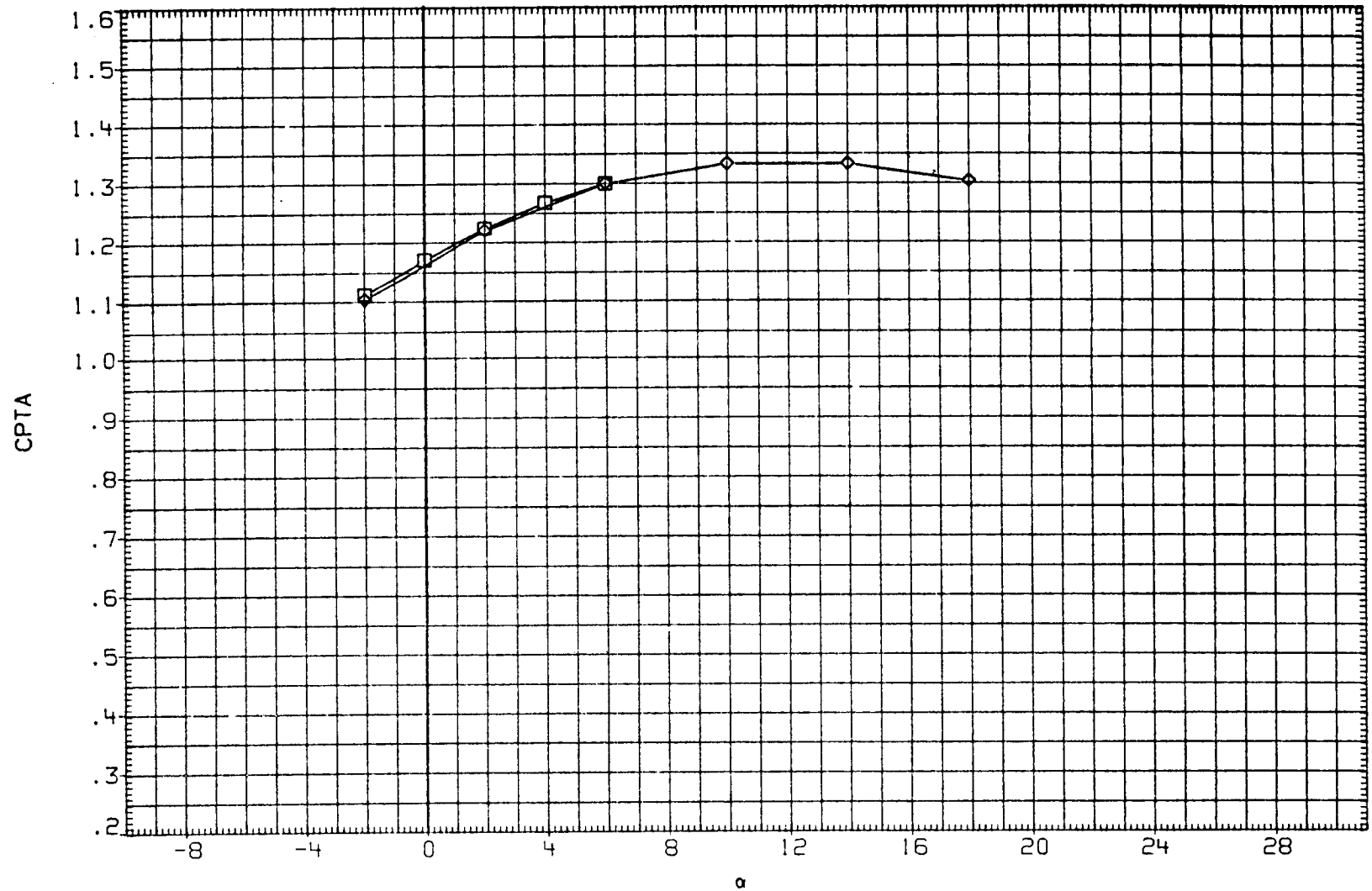


FIG. 25 0A232 SIDE PROBE CPTA VERSUS ALPHA REPEATABILITY, INVERTED
DATA INTERPOLATED WITH MACH, ALPHA PROBE ON RIGHT SIDE

(L)MACH = 1.10 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVR105	○	DATA NOT AVAILABLE					.000	.000
AVR107	□	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	INV	.000	180.000
AVRJ09	◇	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S		.000	.000

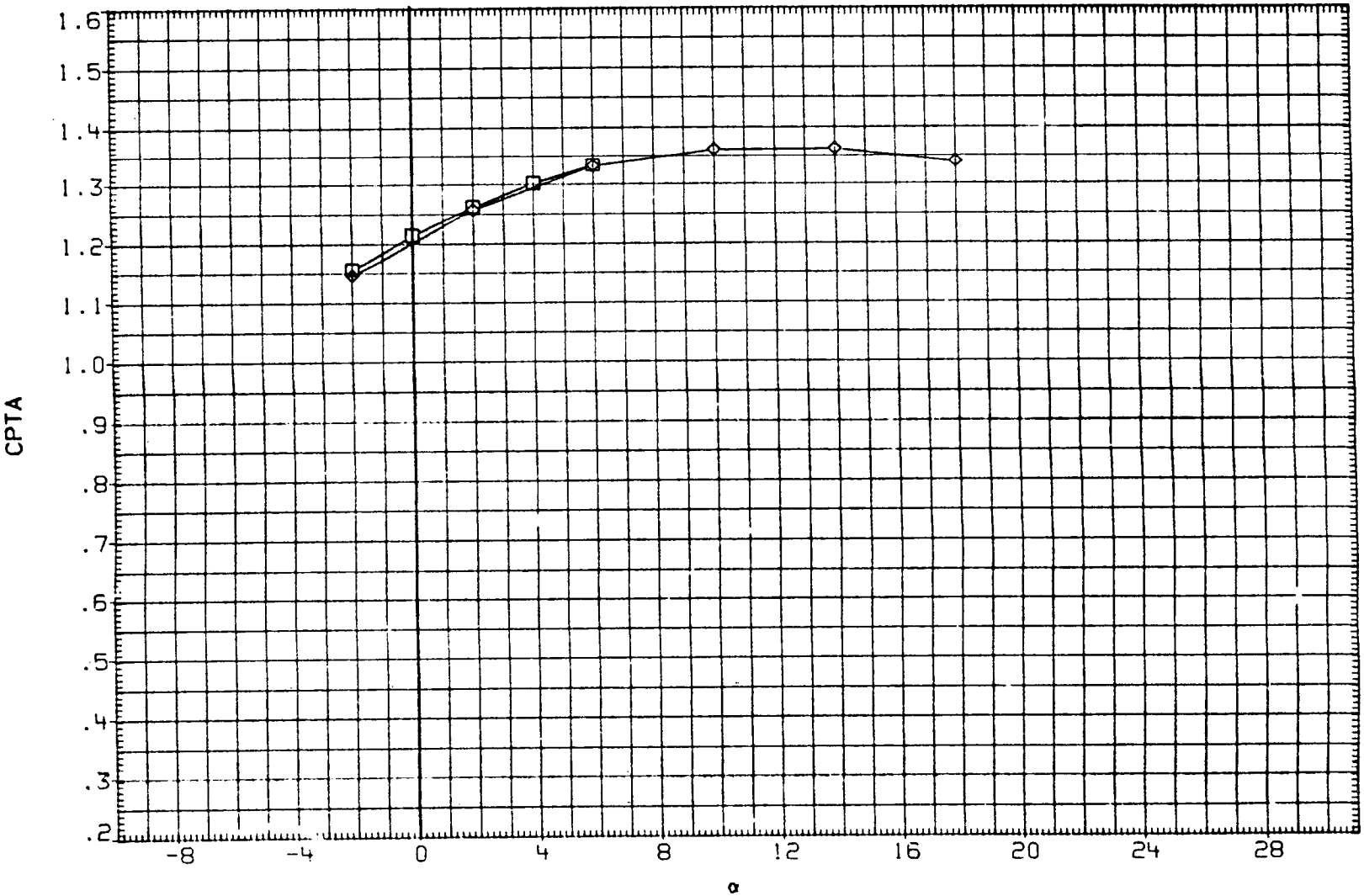


FIG. 25 0A232 SIDE PROBE CPTA VERSUS ALPHA REPEATABILITY, INVERTED
DATA INTERPOLATED WITH MACH, ALPHA PROBE ON RIGHT SIDE

(M)MACH = 1.15 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVR105	○	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	LOW RN	.000	.000
AVR107	□	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	INV	.000	180.000
AVRJ09	◇	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S		.000	.000

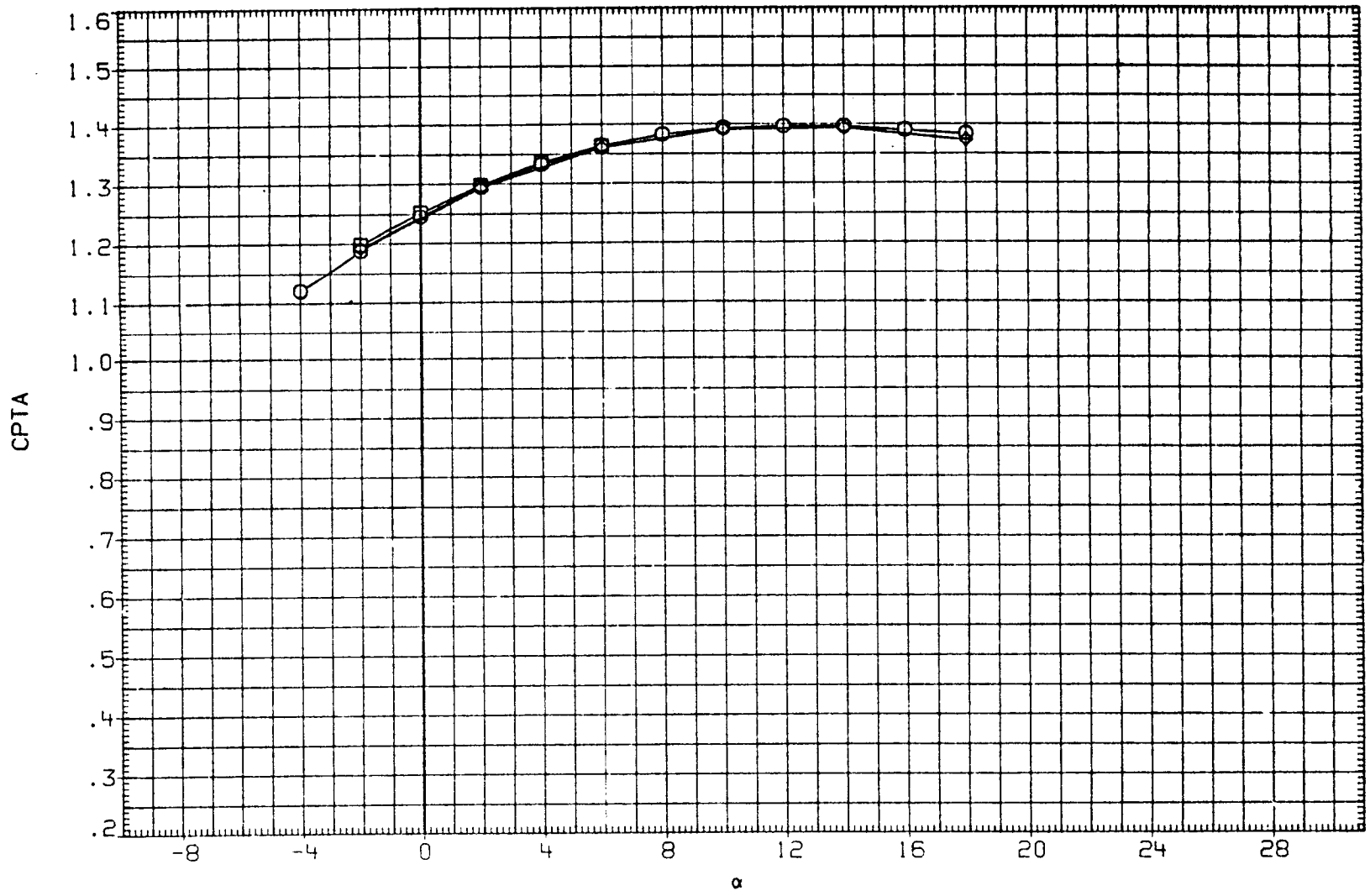


FIG. 25 0A232 SIDE PROBE CPTA VERSUS ALPHA REPEATABILITY, INVERTED
DATA INTERPOLATED WITH MACH, ALPHA PROBE ON RIGHT SIDE

(N)MACH = 1.20 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVRI05	○	DATA NOT AVAILABLE					.000	.000
AVRI07	□	OA232	AEDC 16T TF431	LFN.IS	RA .2P/S	INV	.000	180.000
AVRJ09	◇	OA232	AEDC 16T TF431	LFN.IS	RA .2P/S		.000	.000

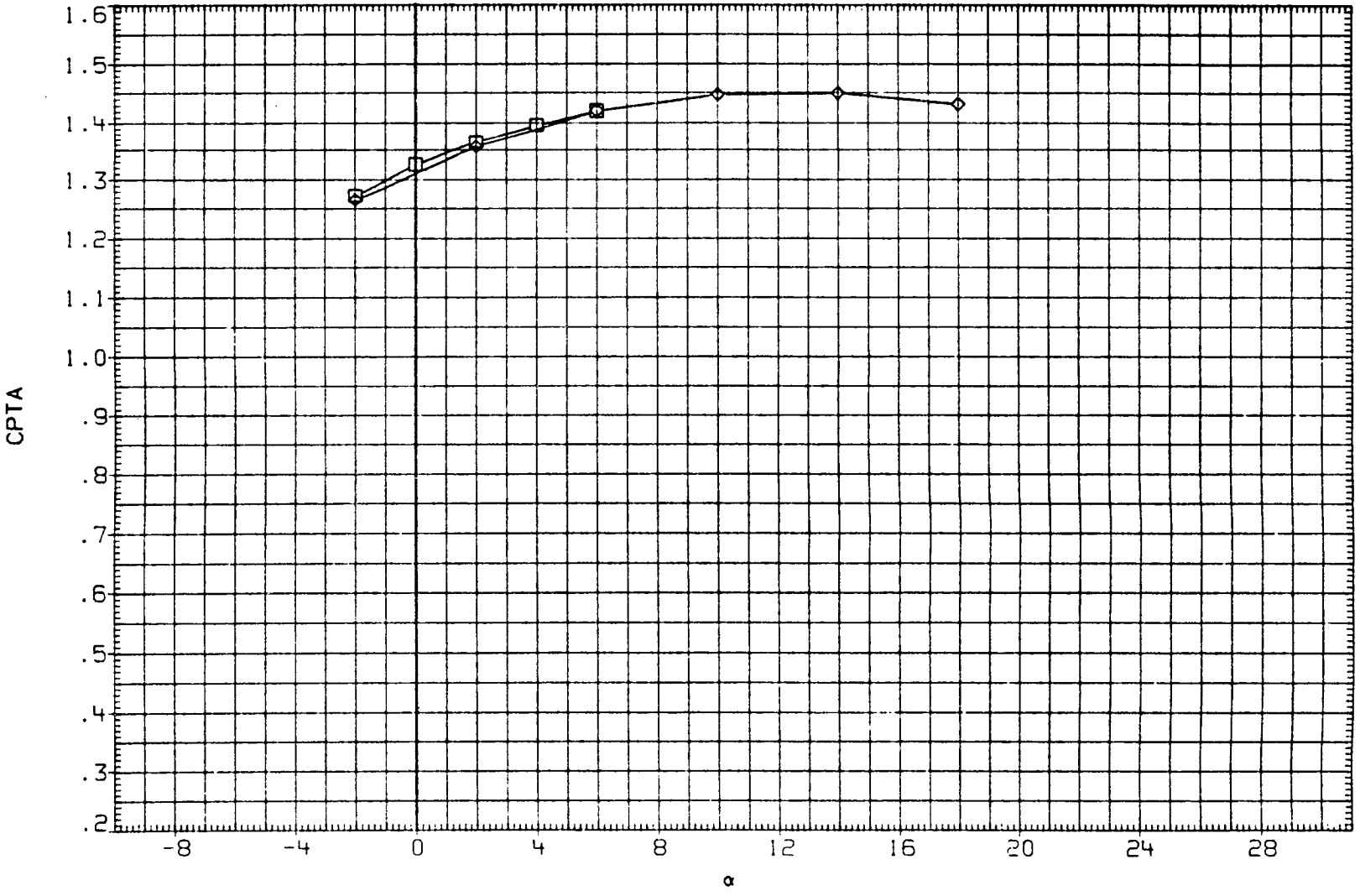


FIG. 25 OA232 SIDE PROBE CPTA VERSUS ALPHA REPEATABILITY, INVERTED
DATA INTERPOLATED WITH MACH, ALPHA PROBE ON RIGHT SIDE

(O) MACH = 1.30 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRI05	○	DATA NOT AVAILABLE				.000	.000
AVRI07	□	OA232 AEDC 16T TF431	LFN.1S	RA .2P/S	INV	.000	180.000
AVRJ09	◇	DATA NOT AVAILABLE				.000	.000

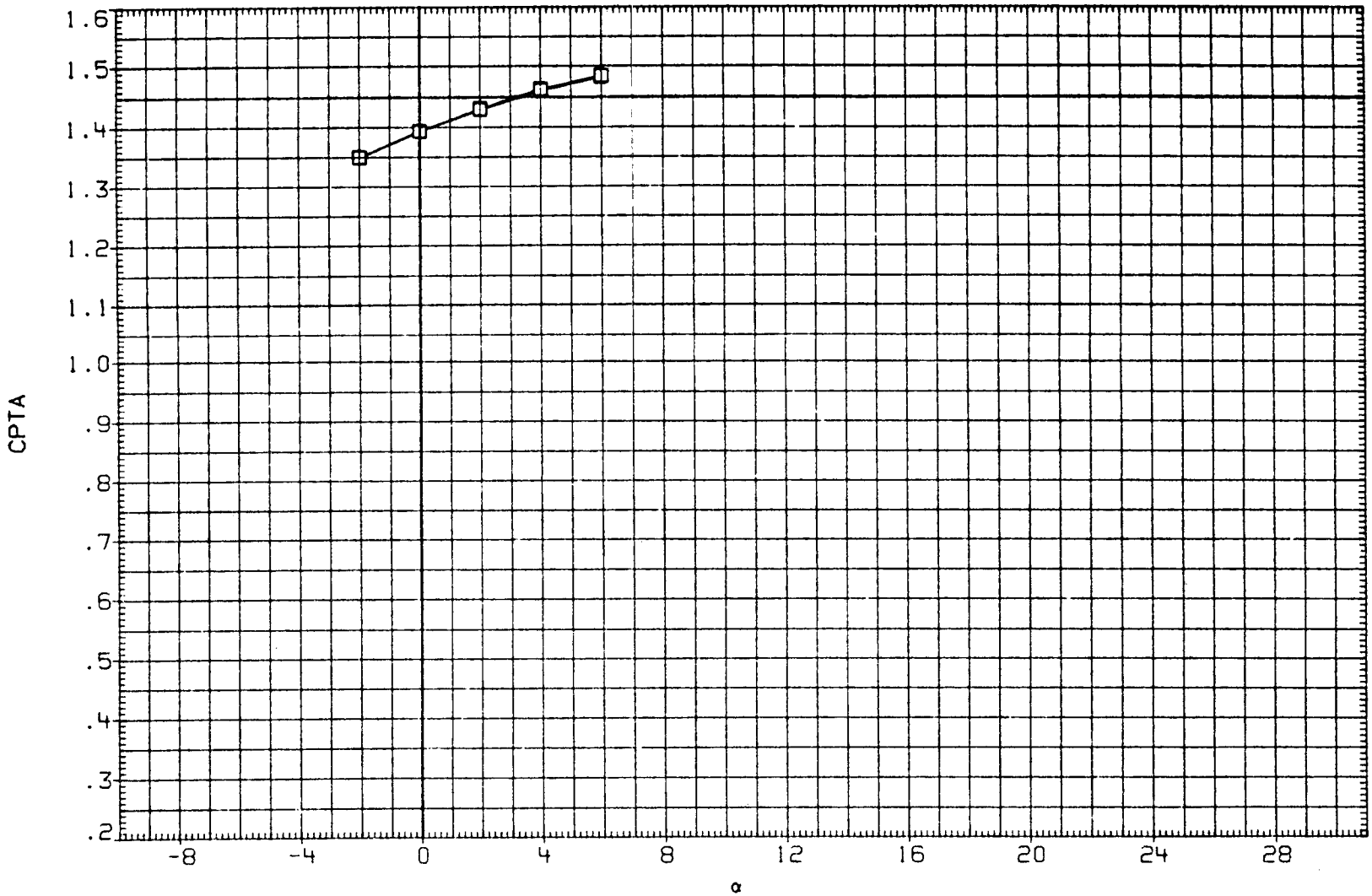


FIG. 25 OA232 SIDE PROBE CPTA VERSUS ALPHA REPEATABILITY, INVERTED
DATA INTERPOLATED WITH MACH, ALPHA PROBE ON RIGHT SIDE

(P)MACH = 1.40 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVR105	○	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S LOW RN		000	.000
AVR107	□	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	INV	.000	180.000
AVR109	◇	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S		.000	.000

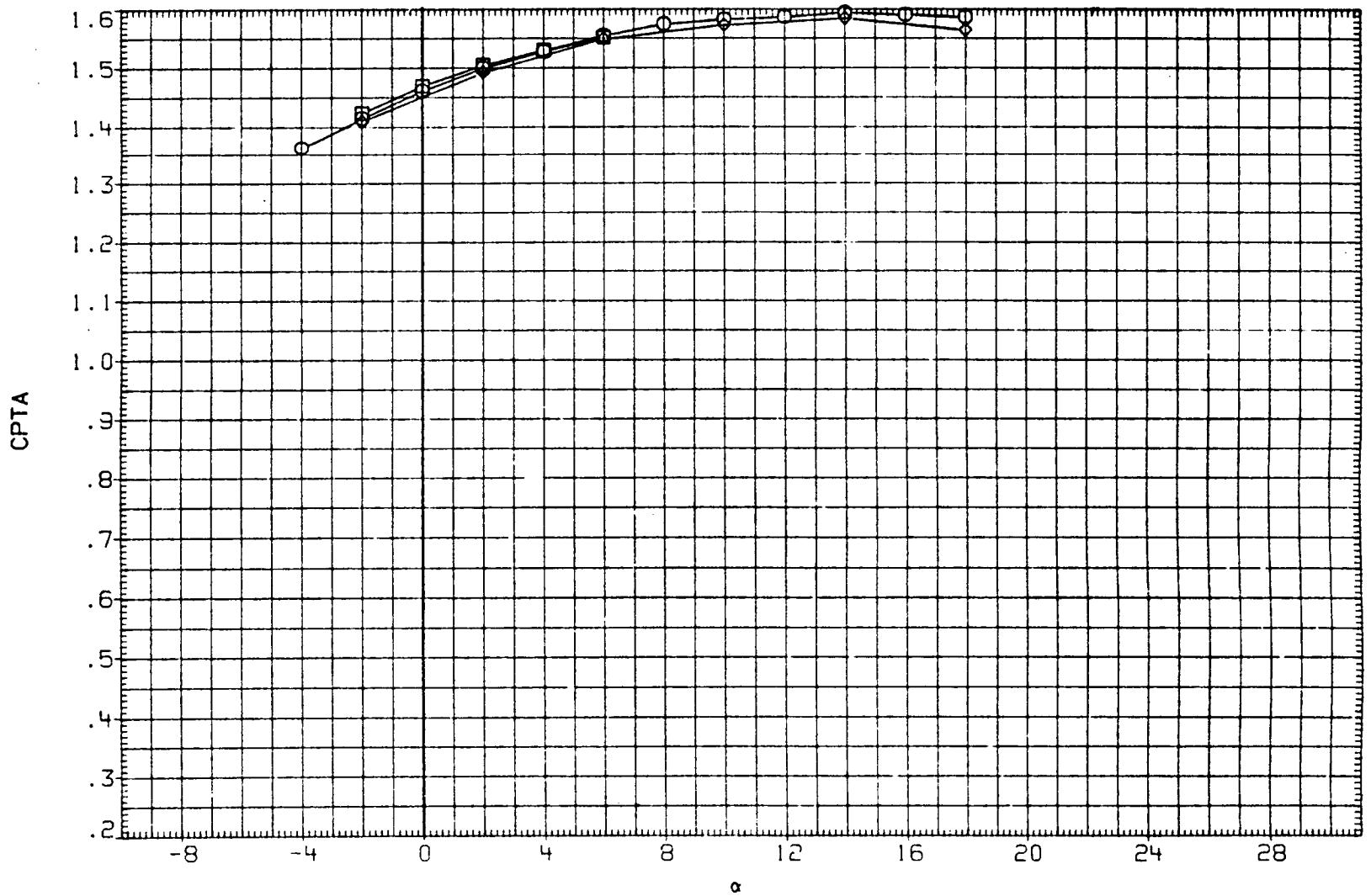


FIG. 25 0A232 SIDE PROBE CPTA VERSUS ALPHA REPEATABILITY, INVERTED
DATA INTERPOLATED WITH MACH, ALPHA PROBE ON RIGHT SIDE

(Q)MACH = 1.55 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVR105	○	0A232	AEDC	16T	TF431	LFN.1S RA .2P/S LOW RN	.000	.000
AVR107	□	0A232	AEDC	16T	TF431	LFN.1S RA .2P/S INV	.000	180.000
AVRJ09	◇	0A232	AEDC	16T	TF431	LFN.1S RA .2P/S	.000	.000

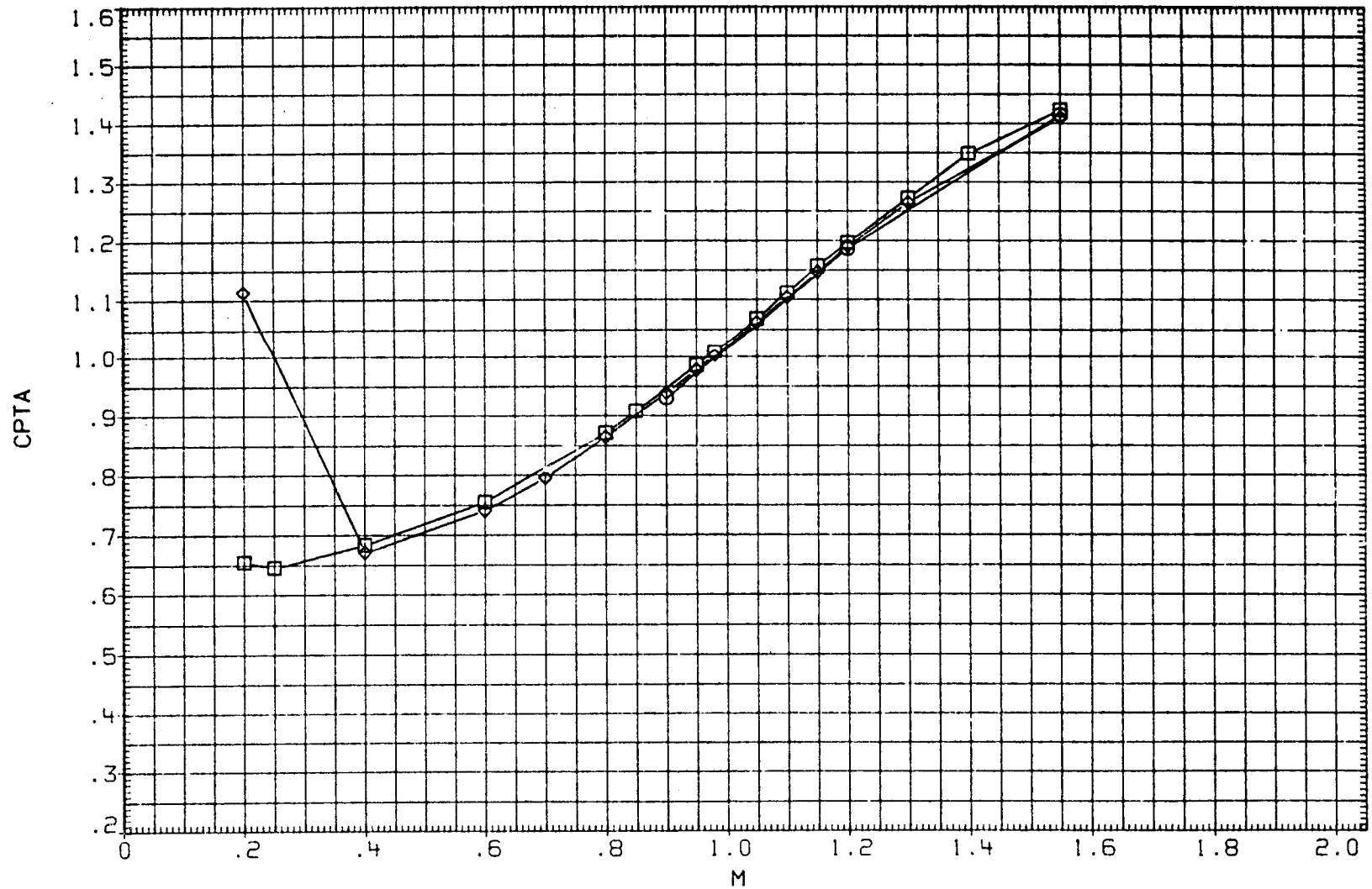


FIG. 26 0A232 SIDE PROBE CPTA VERSUS MACH NUMBER REPEATABILITY, INVERTED PROBE ON RIGHT SIDE
DATA INTERPOLATED WITH MACH, ALPHA

(A) ALPHA = -2.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVR105	○	0A232 AEDC 16T TF431 LFN.IS	RA .2P/S LOW RN			.000	.000
AVR107	□	0A232 AEDC 16T TF431 LFN.IS	RA .2P/S	INV		.000	180.000
AVRJ09	◇	DATA NOT AVAILABLE				.000	.000

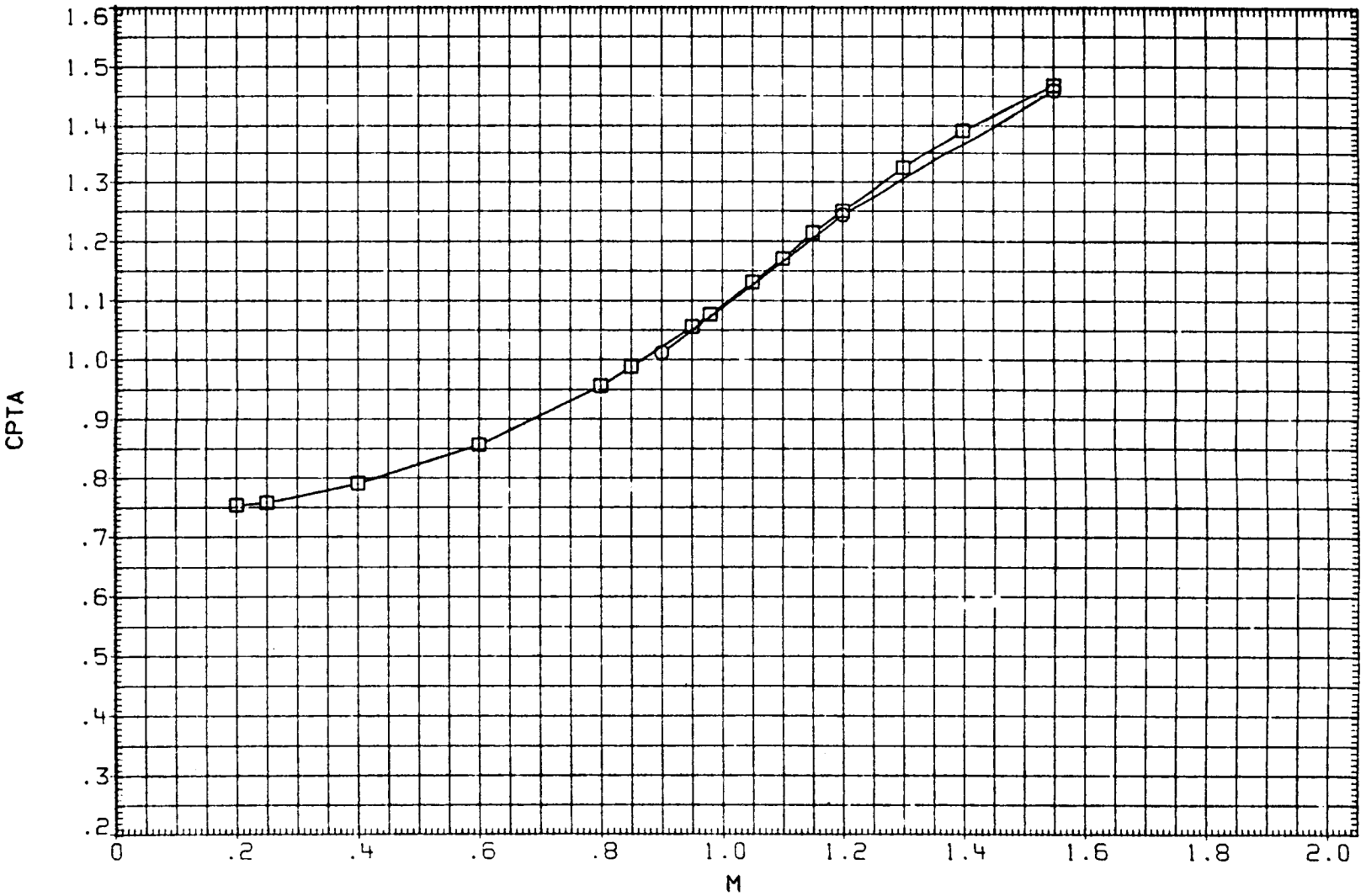


FIG. 26 0A232 SIDE PROBE CPTA VERSUS MACH NUMBER REPEATABILITY, INVERTED
DATA INTERPOLATED WITH MACH, ALPHA PROBE ON RIGHT SIDE

(B) ALPHA .00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVRI05	○	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S LOW RN		.000	.000
AVRI07	□	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	INV	.000	180.000
AVRJ09	◇	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S		.000	.000

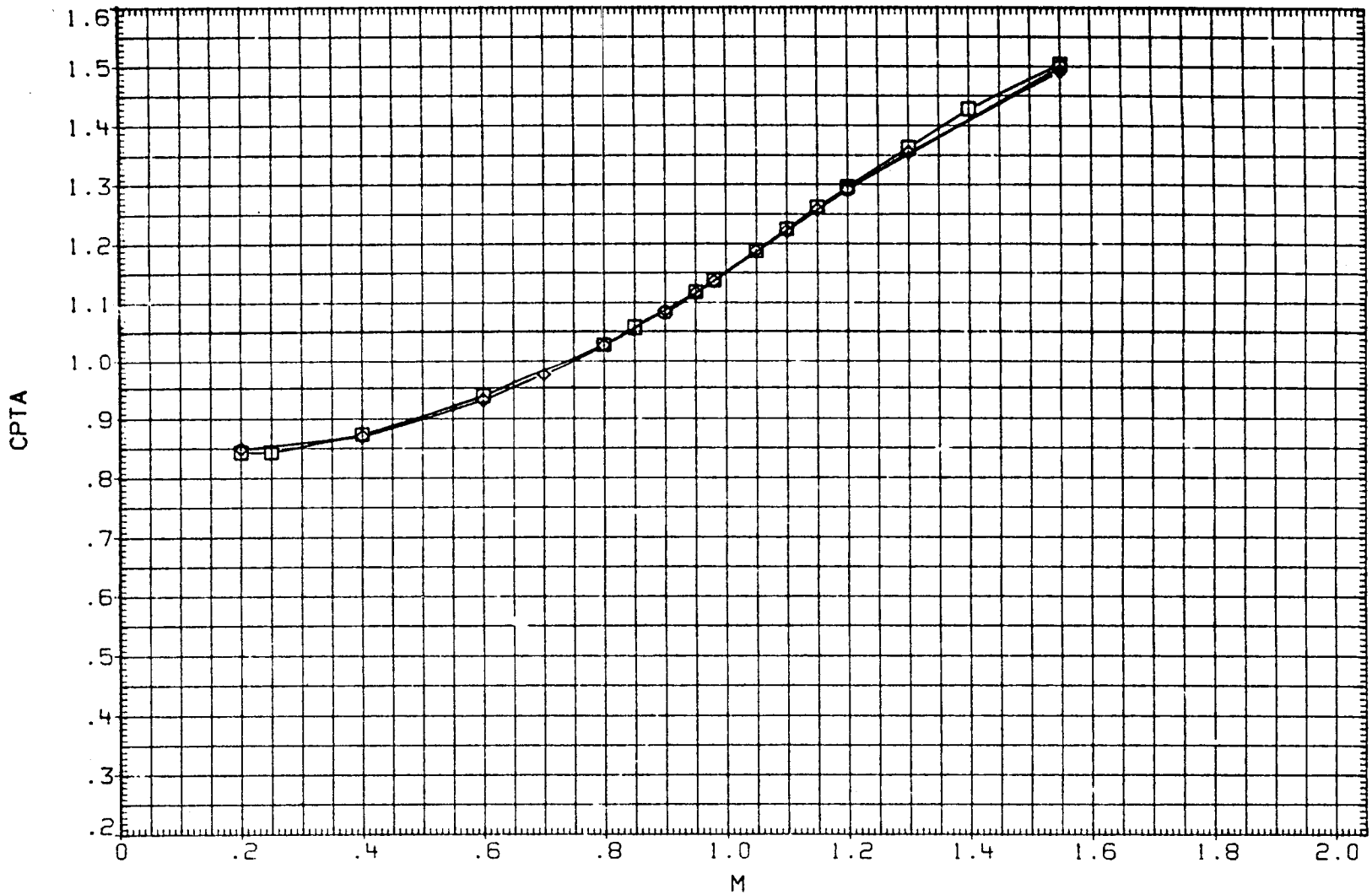


FIG. 26 0A232 SIDE PROBE CPTA VERSUS MACH NUMBER REPEATABILITY, INVERTED
DATA INTERPOLATED WITH MACH, ALPHA PROBE ON RIGHT SIDE

(C) ALPHA = 2.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRI05	○	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S LOW RN	.000	.000
AVRI07	□	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S INV	.000	180.000
AVRJ09	◇	DATA NOT AVAILABLE				.000	.000

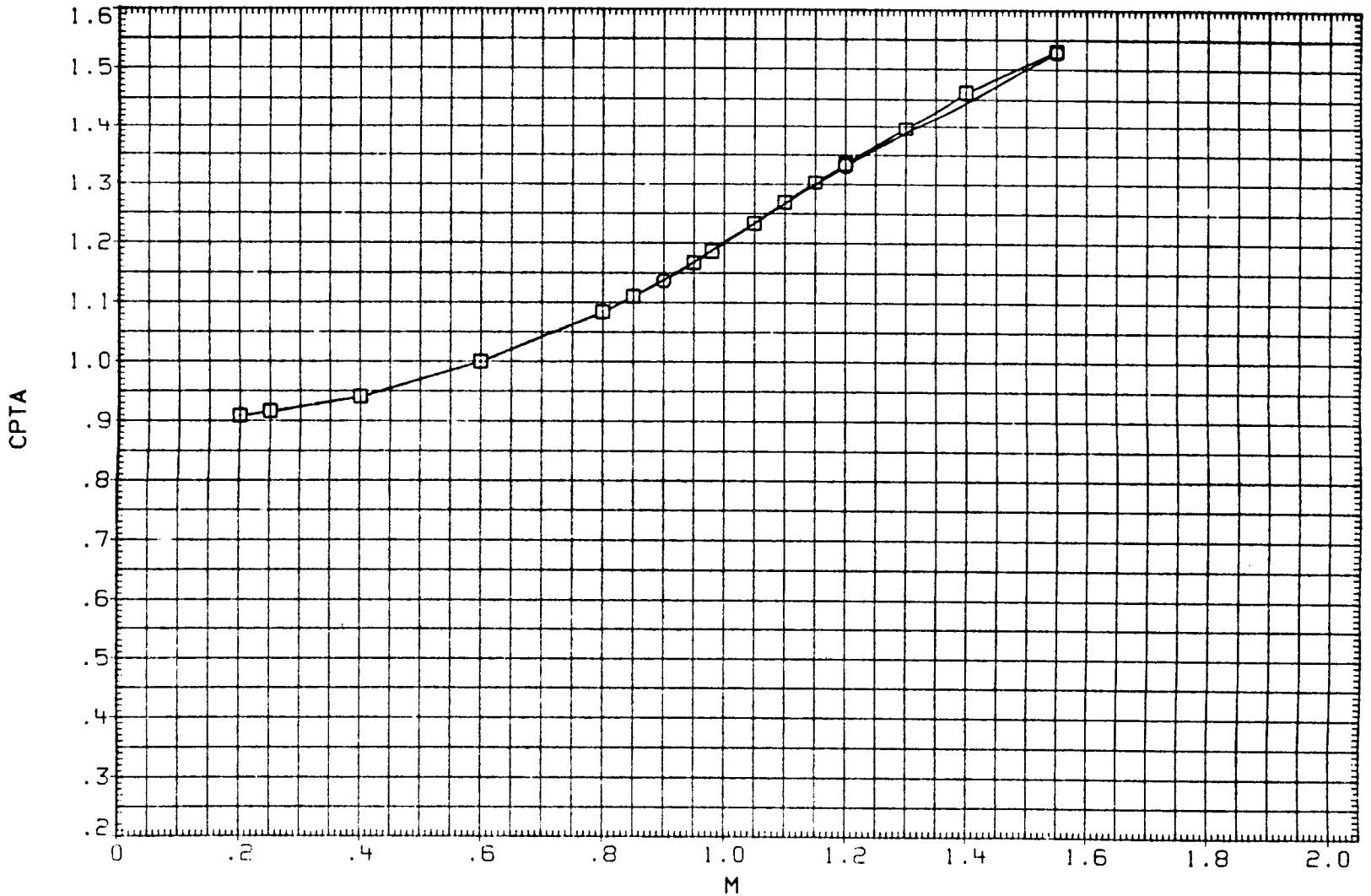


FIG. 26 0A232 SIDE PROBE CPTA VERSUS MACH NUMBER REPEATABILITY, INVERTED
DATA INTERPOLATED WITH MACH, ALPHA PROBE ON RIGHT SIDE

(D) ALPHA = 4.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRI05	○	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S LOW RN	.000	.000
AVRI07	□	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S INV	.000	180.000
AVRJ09	◇	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S	.000	.000

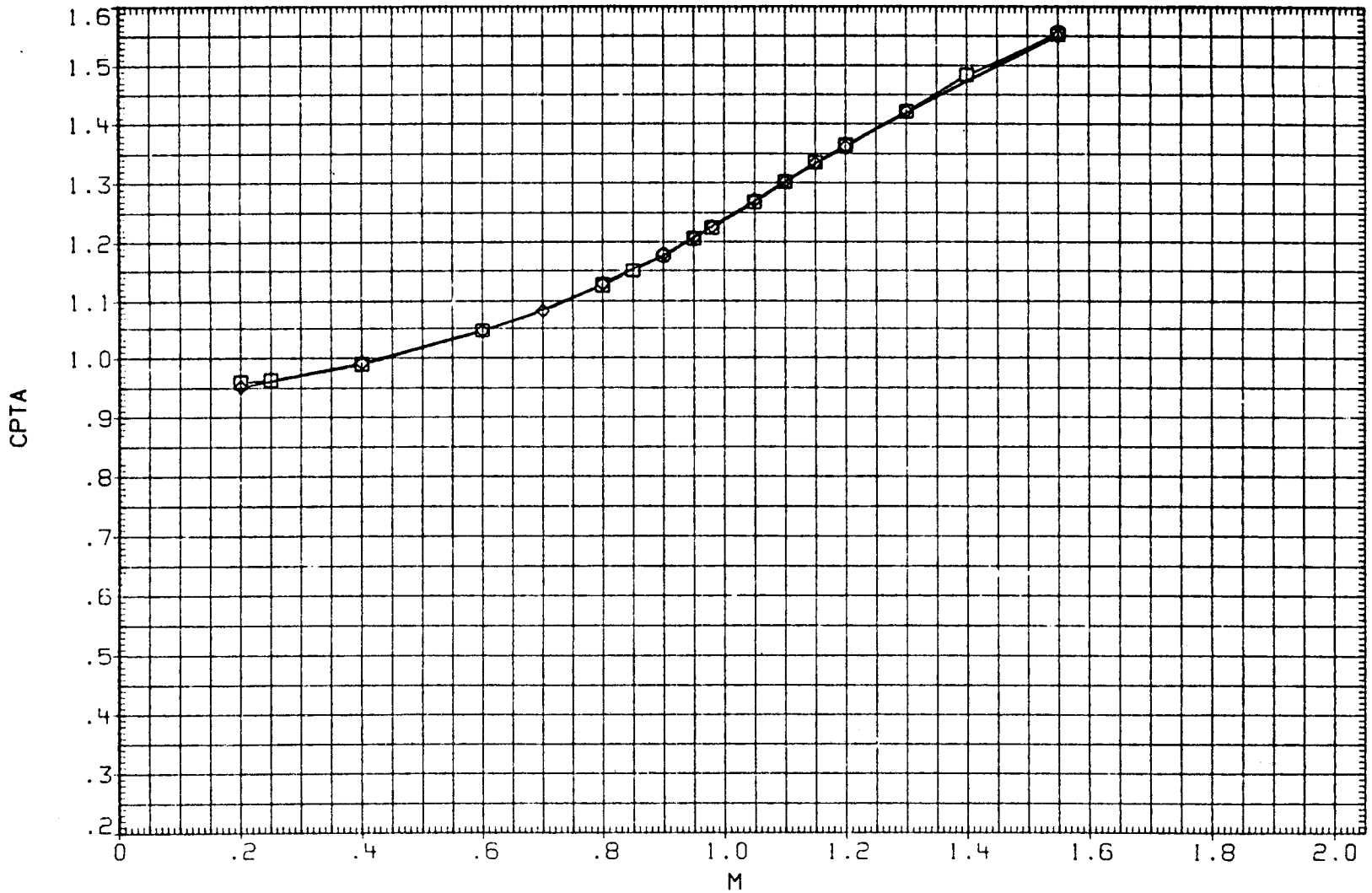


FIG. 26 0A232 SIDE PROBE CPTA VERSUS MACH NUMBER REPEATABILITY, INVERTED PROBE ON RIGHT SIDE
DATA INTERPOLATED WITH MACH, ALPHA

DATA SET	SYMBOL	CONFIGURATION		BETA	PHI
AVR105	○	0A232 AEDC 16T TF431 LFN.1S	RA .2P/S LOW RN	.000	.000
AVR107	□	DATA NOT AVAILABLE		.000	180.000
AVRJ09	◇	0A232 AEDC 16T TF431 LFN.1S	RA .2P/S	.000	.000

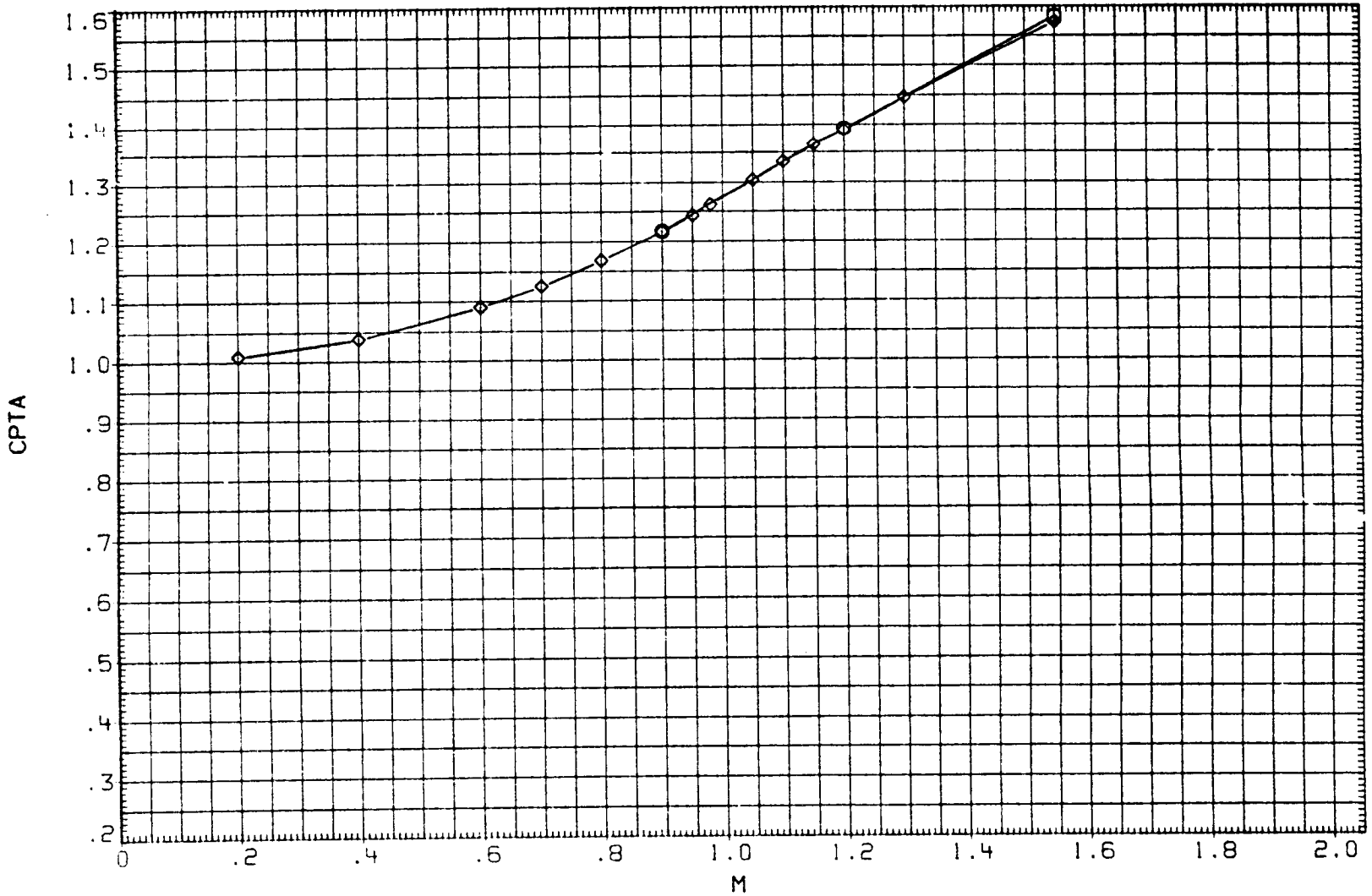


FIG. 26 0A232 SIDE PROBE CPTA VERSUS MACH NUMBER REPEATABILITY, INVERTED PROBE ON RIGHT SIDE
DATA INTERPOLATED WITH MACH,ALPHA

(F)ALPHA = 10.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION		BETA	PHI
AVR105	○	0A232 AEDC 16T TF431 LFN.1S	RA .2P/S LOW RN	.000	.000
AVR107	□	DATA NOT AVAILABLE		.000	180.000
AVRJ09	◇	0A232 AEDC 16T TF431 LFN.1S	RA .2P/S	.000	.000

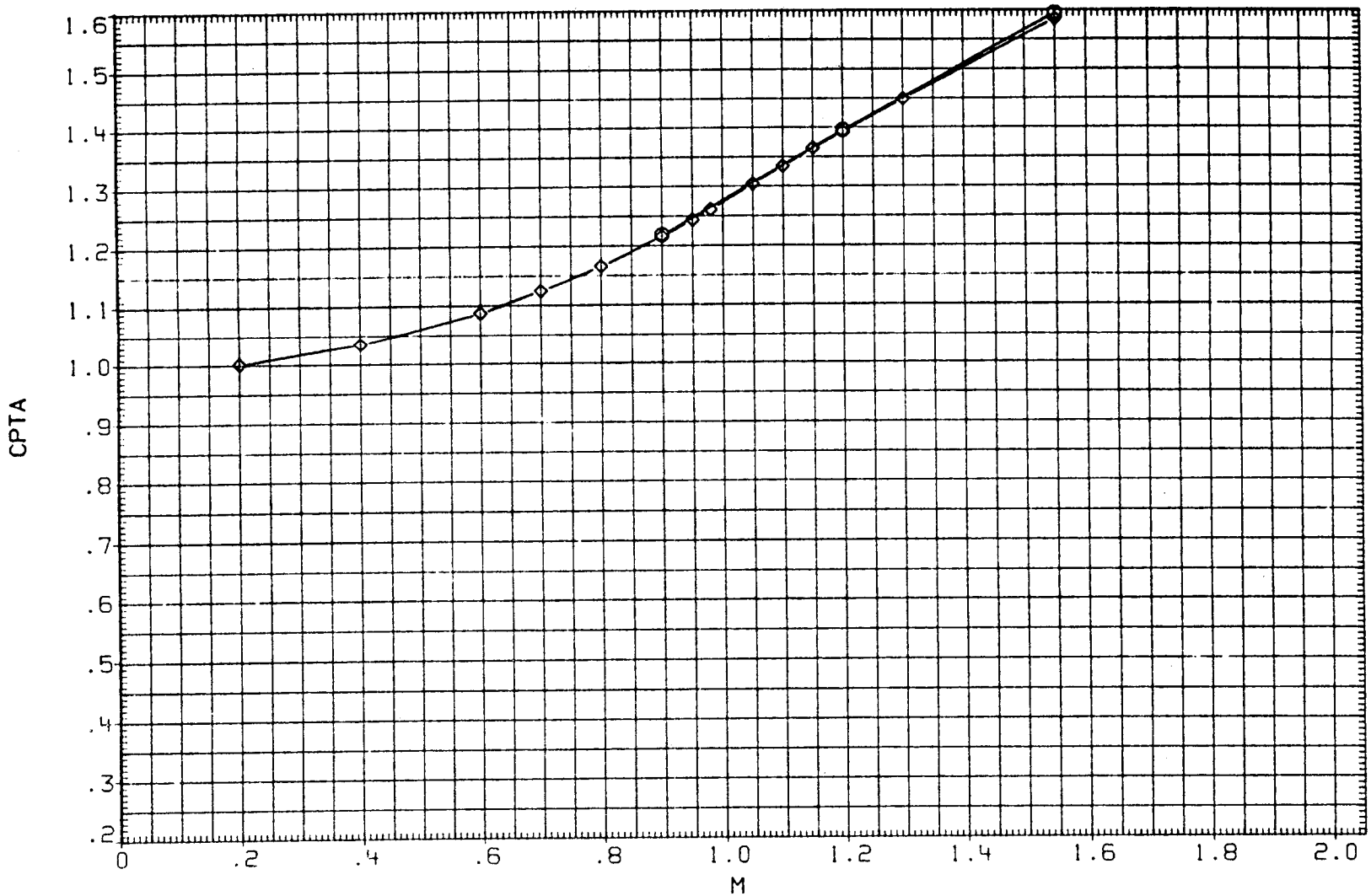


FIG. 26 0A232 SIDE PROBE CPTA VERSUS MACH NUMBER REPEATABILITY, INVERTED PROBE ON RIGHT SIDE
DATA INTERPOLATED WITH MACH, ALPHA

DATA SET	SYMBOL	CONFIGURATION		BETA	PHI
AVRI05	○	0A232 AEDC 16T TF431 LFN.1S	RA .2P/S LOW RN	.000	.000
AVRI07	□	DATA NOT AVAILABLE		.000	180.000
AVRJ09	◇	0A232 AEDC 16T TF431 LFN.1S	RA .2P/S	.000	.000

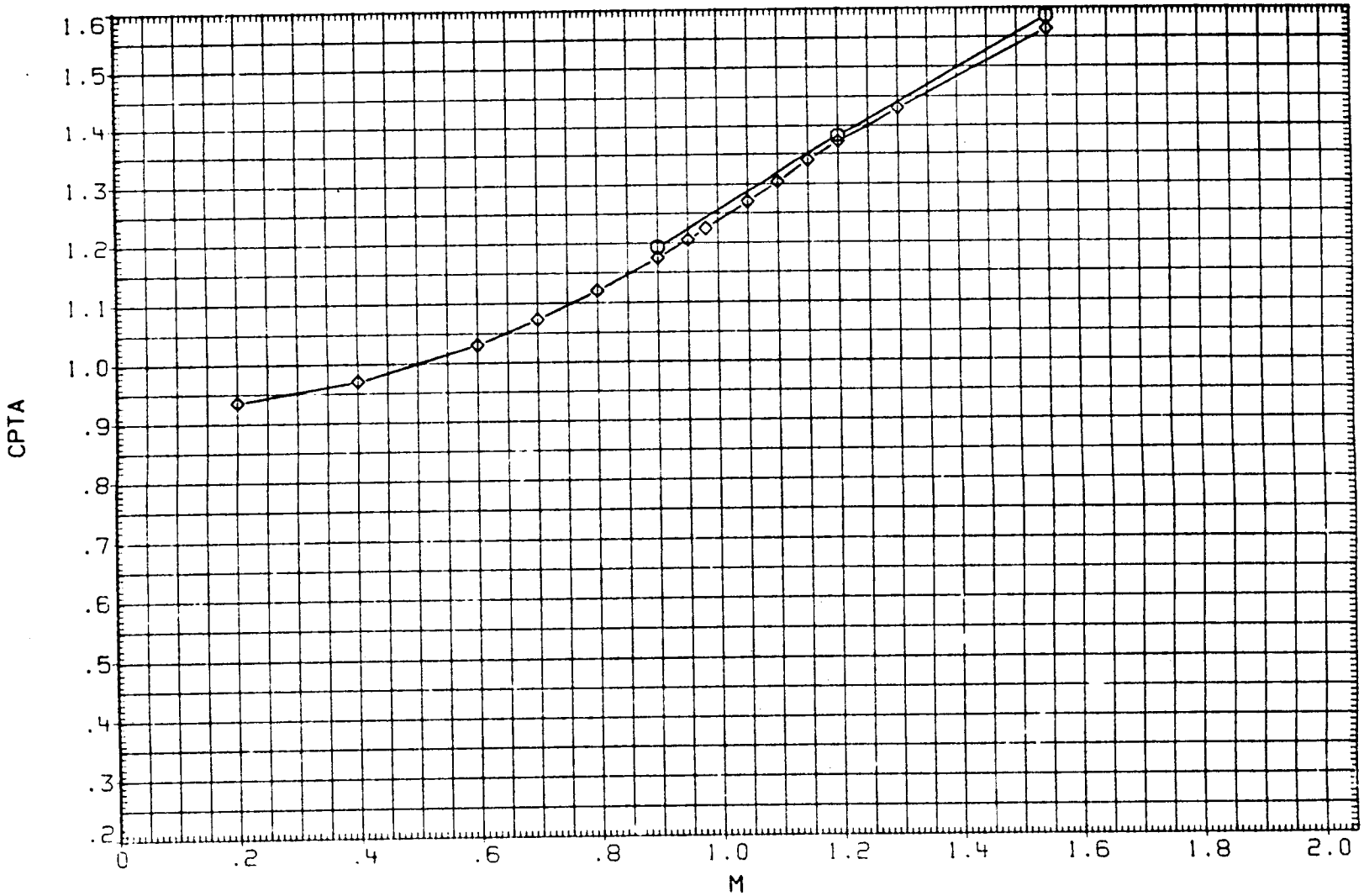


FIG. 26 0A232 SIDE PROBE CPTA VERSUS MACH NUMBER REPEATABILITY, INVERTED PROBE ON RIGHT SIDE
DATA INTERPOLATED WITH MACH, ALPHA

(H) ALPHA 13.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION		BETA	PHI
AVR104	○	0A232 AEDC 16T TF431 LFN.1S	RA .2P/S	.000	.000
AVR105	□	DATA NOT AVAILABLE		.000	.000
AVR121	◇	0A232 AEDC 16T TF431 LFN.1S	RA .2P/S HI RN	.000	.000

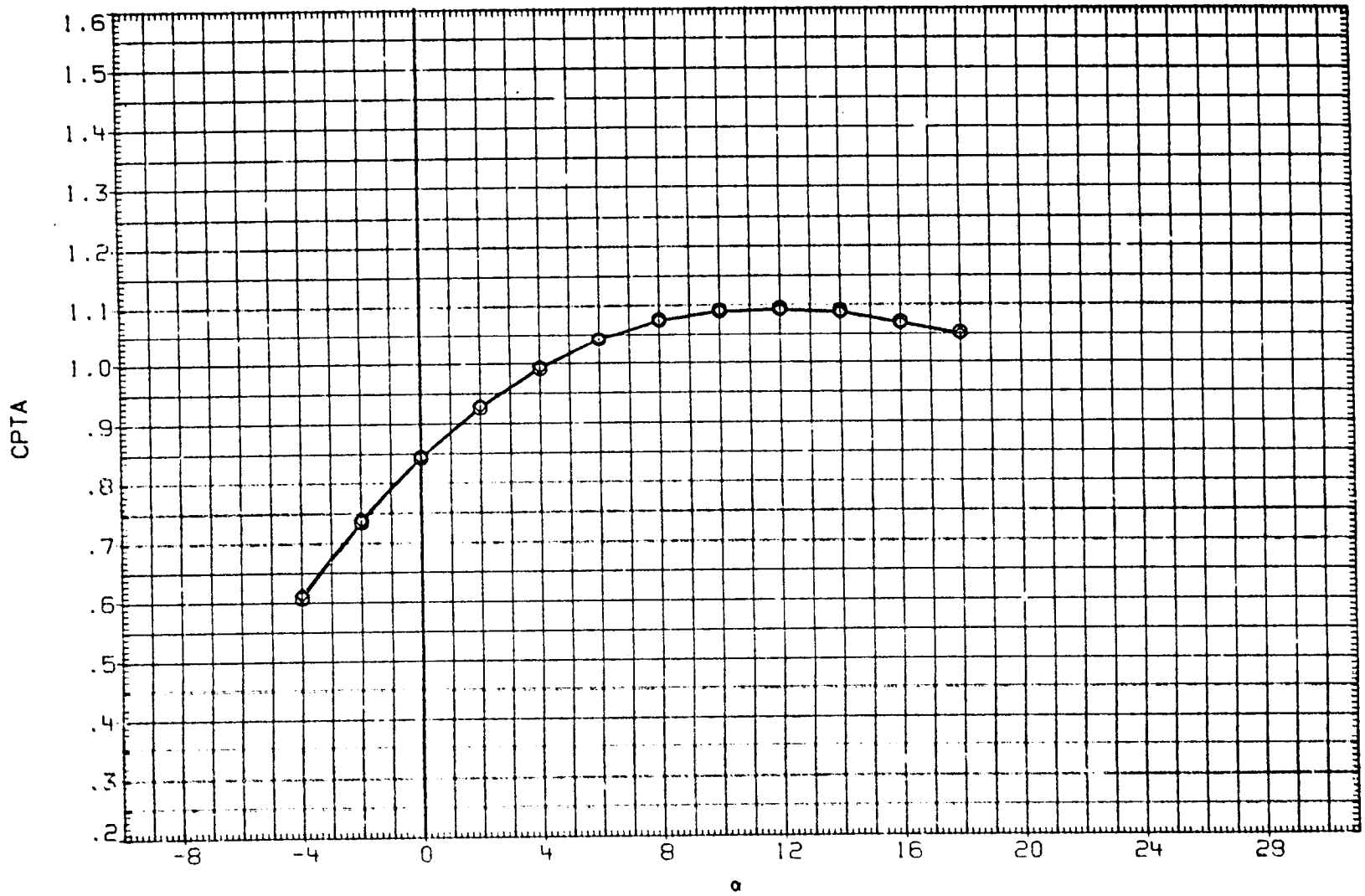


FIG. 27 0A232 SIDE PROBE CPTA VERSUS ALPHA EFFECT OF FTP
DATA INTERPOLATED WITH MACH, ALPHA PROBE ON RIGHT SIDE

(A)MACH = .60 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION		BETA	PHI
AVR104	○	0A232 AEDC 16T TF431 LFN.1S	RA .2P/S	.000	.000
AVR105	□	0A232 AEDC 16T TF431 LFN.1S	RA .2P/S LOW RN	.000	.000
AVR121	◇	DATA NOT AVAILABLE		.000	.000

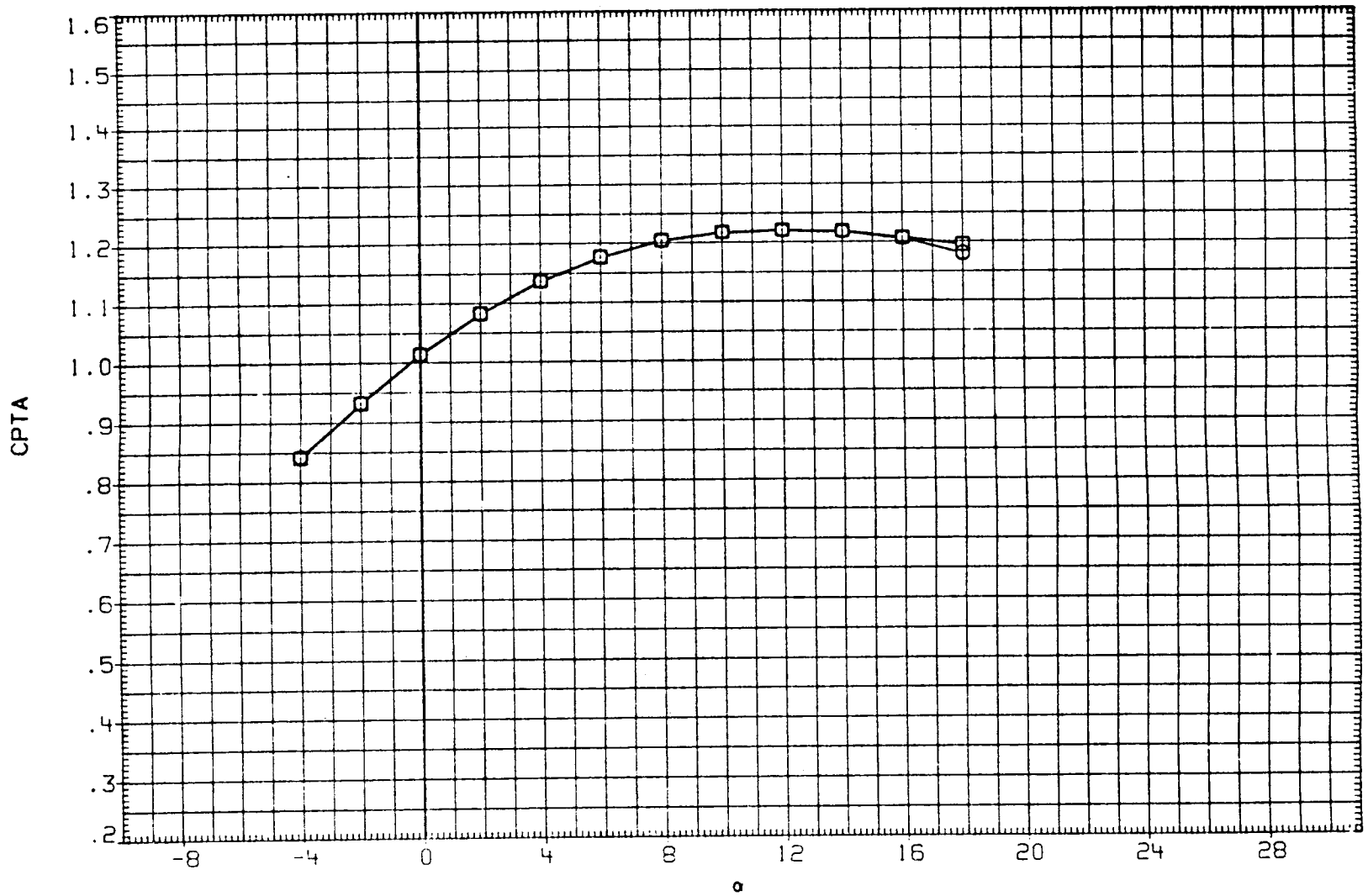


FIG. 27 0A232 SIDE PROBE CPTA VERSUS ALPHA EFFECT OF FTP
DATA INTERPOLATED WITH MACH, ALPHA PROBE ON RIGHT SIDE

(B) MACH = .90 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION		BETA	PHI
AVR104	○	0A232 AEDC 16T TF431 LFN.1S	RA .2P/S	.000	.000
AVR105	□	0A232 AEDC 16T TF431 LFN.1S	RA .2P/S LOW RN	.000	.000
AVR121	◇	DATA NOT AVAILABLE		.000	.000

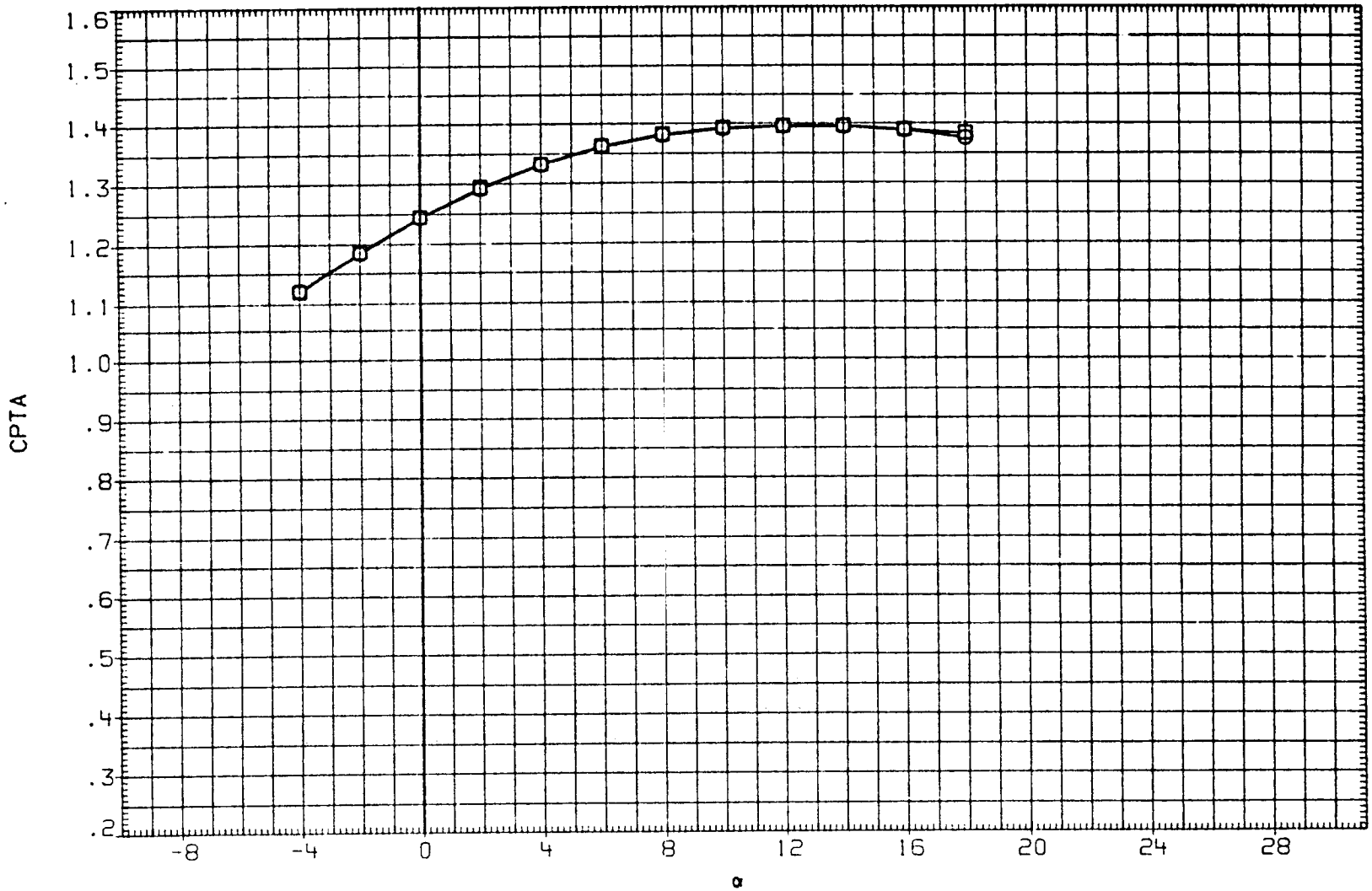


FIG. 27 0A232 SIDE PROBE CPTA VERSUS ALPHA EFFECT OF FTP
DATA INTERPOLATED WITH MACH, ALPHA PROBE ON RIGHT SIDE

(C)MACH = 1.20 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION		BETA	PHI
AVRI04	○	0A232 AEDC 16T TF431 LFN.1S	RA .2P/S	.000	.000
AVRI05	□	0A232 AEDC 16T TF431 LFN.1S	RA .2P/S LOW RN	.000	.000
AVRI21	◇	DATA NOT AVAILABLE		.000	.000

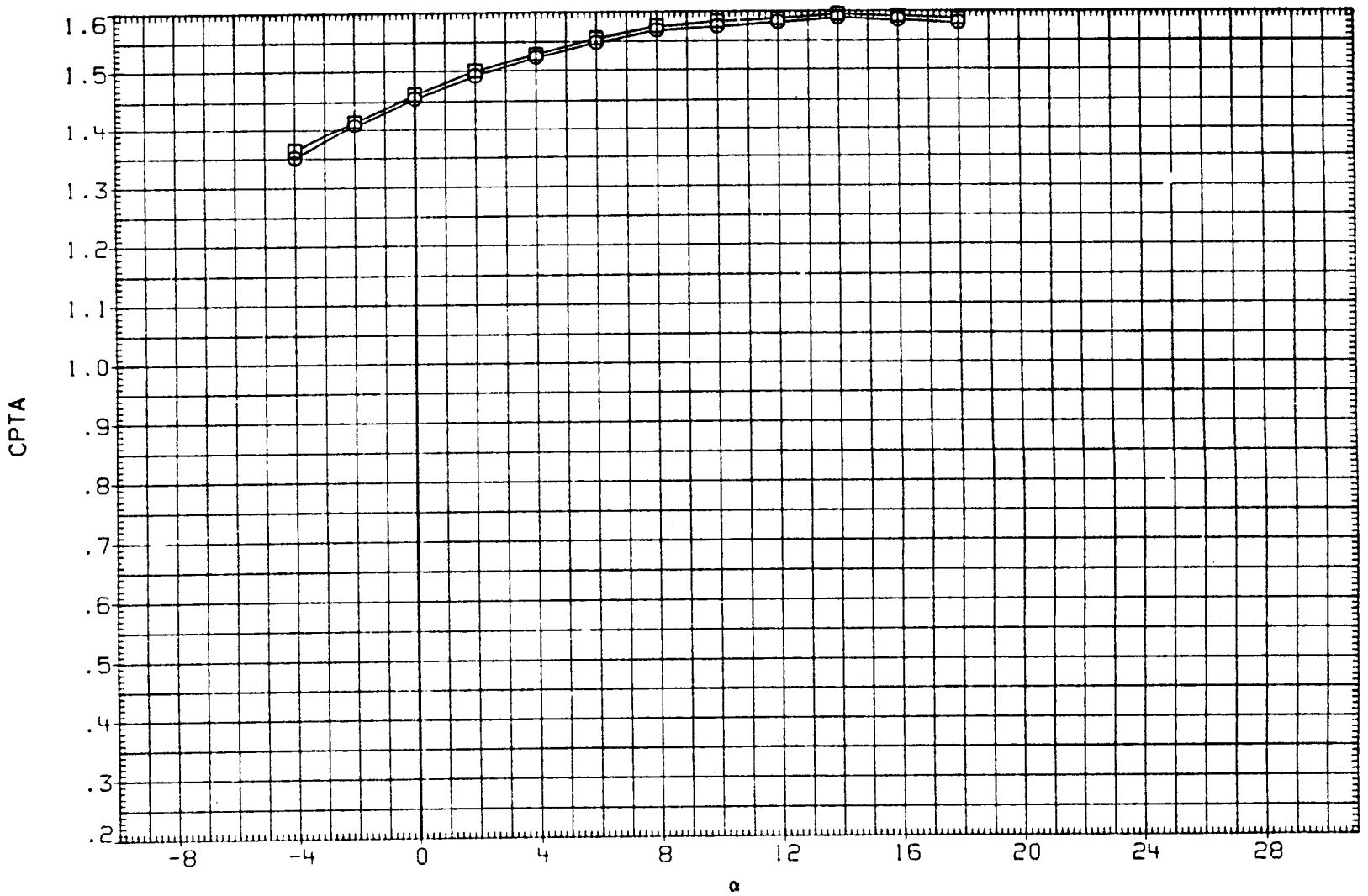


FIG. 27 0A232 SIDE PROBE CPTA VERSUS ALPHA EFFECT OF FTP
DATA INTERPOLATED WITH MACH, ALPHA PROBE ON RIGHT SIDE

(D)MACH = 1.55 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVRB06	○	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S		2.000	.000
AVRB11	□	0A232	AEDC 16T TF431	LA .2P/S	RA .2A		.000	.000
AVRB04	◇	0A232	AEDC 16T TF431	LFN.1S	RA .2P/S		.000	.000
AVRB12	△	0A232	AEDC 16T TF431	LA .2P/S	RA .2A		2.000	.000

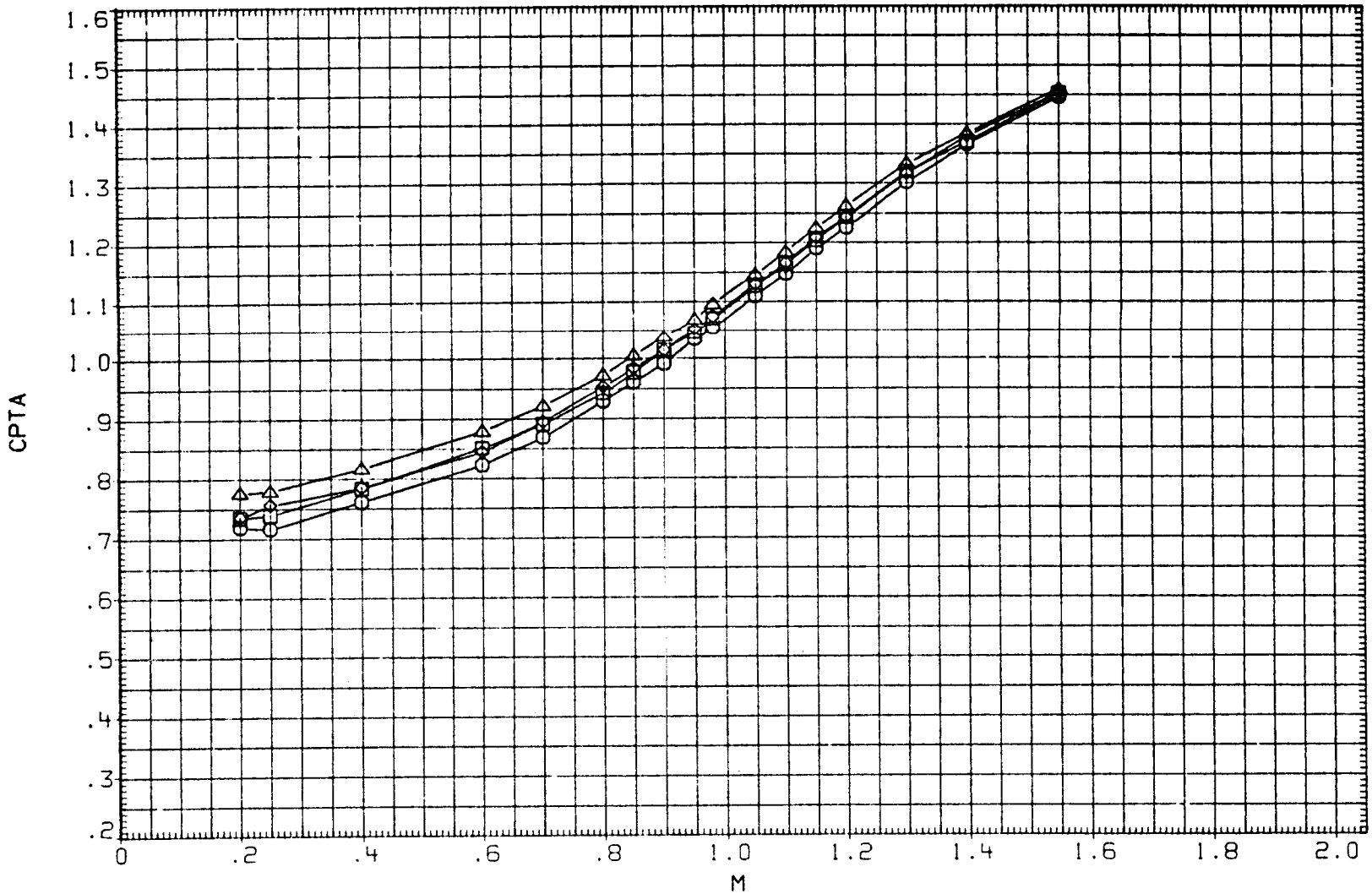


FIG. 28 0A232 SIDE PROBE CPTA VERSUS MACH NUMBER LEFT,RIGHT SIDES COMPARED
DATA INTERPOLATED WITH MACH,ALPHA,BETA

(A)ALPHA = .00 DATE 09 AUG 78 PAGE 133

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVR806	○	0A232	AEDC 16T TF431	LFN.1S		RA .2P/S	2.000	.000
AVR811	□	0A232	AEDC 16T TF431	LA .2P/S		RA .2A	.000	.000
AVR804	◇	0A232	AEDC 16T TF431	LFN.1S		RA .2P/S	.000	.000
AVR812	△	0A232	AEDC 16T TF431	LA .2P/S		RA .2A	2.000	.000

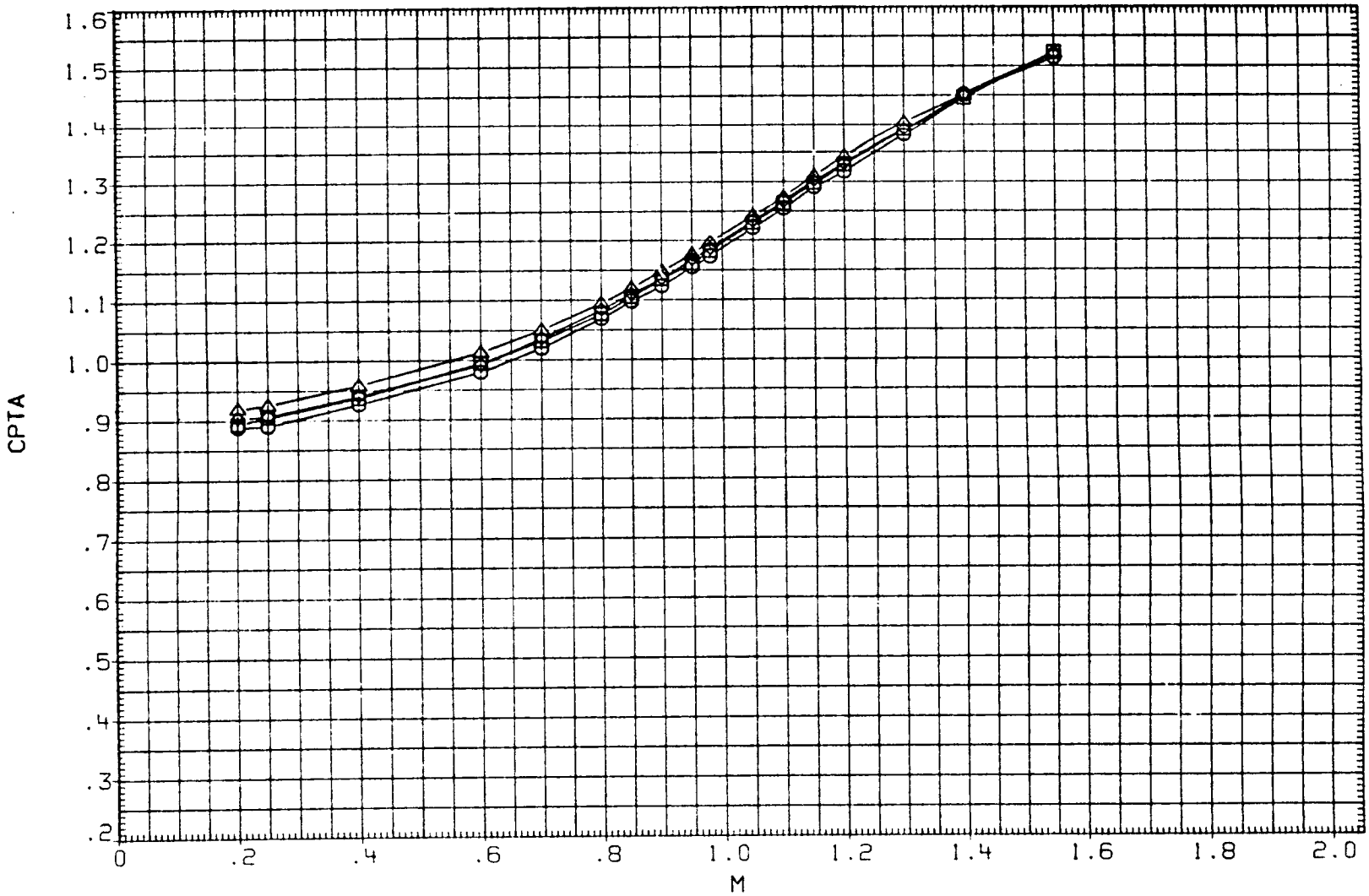


FIG. 28 0A232 SIDE PROBE CPTA VERSUS MACH NUMBER LEFT,RIGHT SIDES COMPARED
DATA INTERPOLATED WITH MACH,ALPHA,BETA

(B) ALPHA = 4.00 DATE 09 AUG 78 PAGE 134

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVRB06	○	OA232	AEDC 16T TF431	LFN.1S		RA .2P/S	2.000	.000
AVRB11	□	OA232	AEDC 16T TF431	LA .2P/S		RA .2A	.000	.000
AVRB04	◇	OA232	AEDC 16T TF431	LFN.1S		RA .2P/S	.000	.000
AVRB12	△	OA232	AEDC 16T TF431	LA .2P/S		RA .2A	2.000	.000

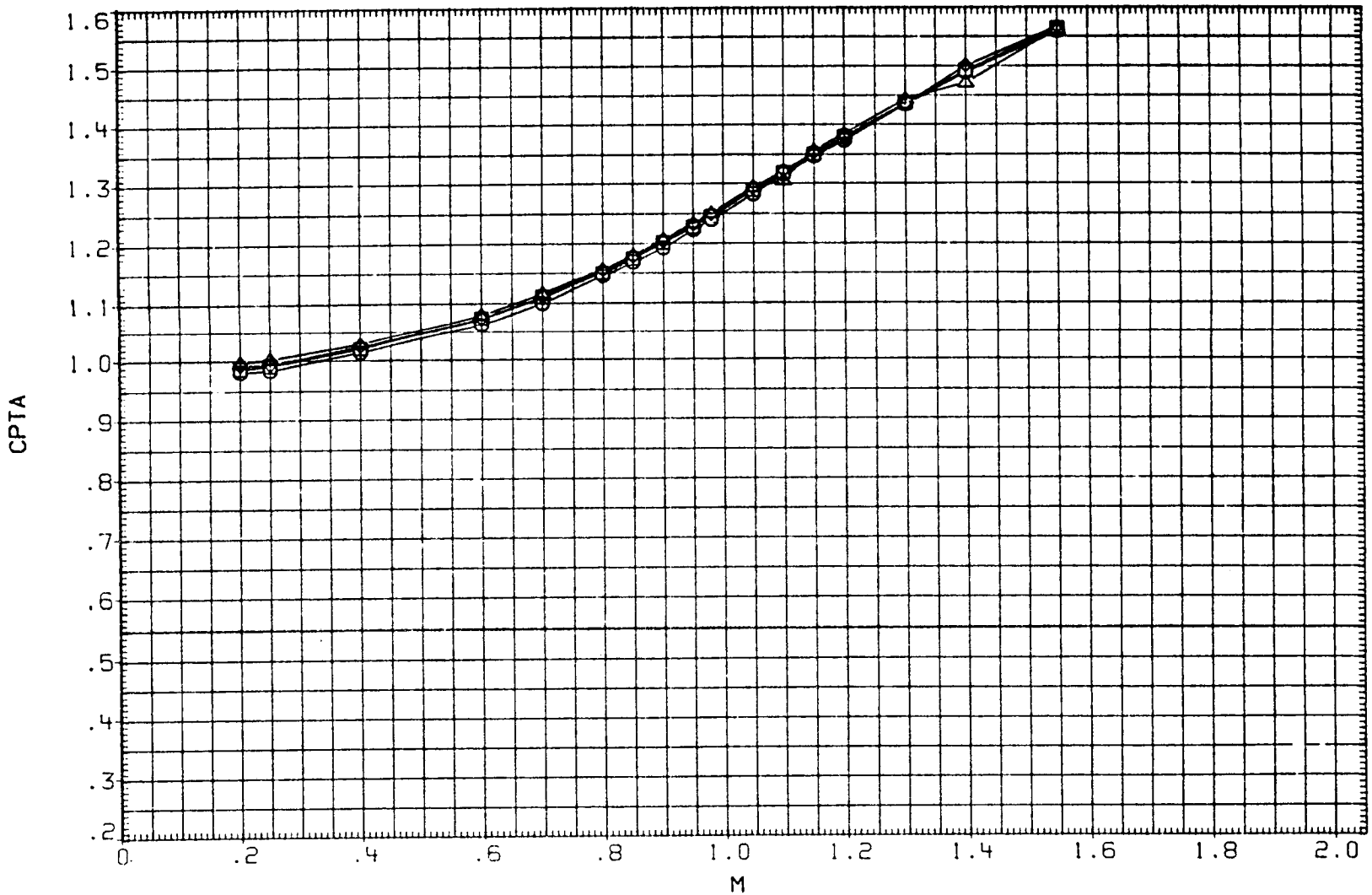


FIG. 28 OA232 SIDE PROBE CPTA VERSUS MACH NUMBER LEFT,RIGHT SIDES COMPARED
DATA INTERPOLATED WITH MACH,ALPHA,BETA

(C)ALPHA = 8.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVRB06	○	0A232	AEDC	16T	TF431	LFN.1S RA .2P/S	2.000	.000
AVRB11	□	0A232	AEDC	16T	TF431	LA .2P/S RA .2A	.000	.000
AVRB04	◇	0A232	AEDC	16T	TF431	LFN.1S RA .2P/S	.000	.000
AVRB12	△	0A232	AEDC	16T	TF431	LA .2P/S RA .2A	2.000	.000

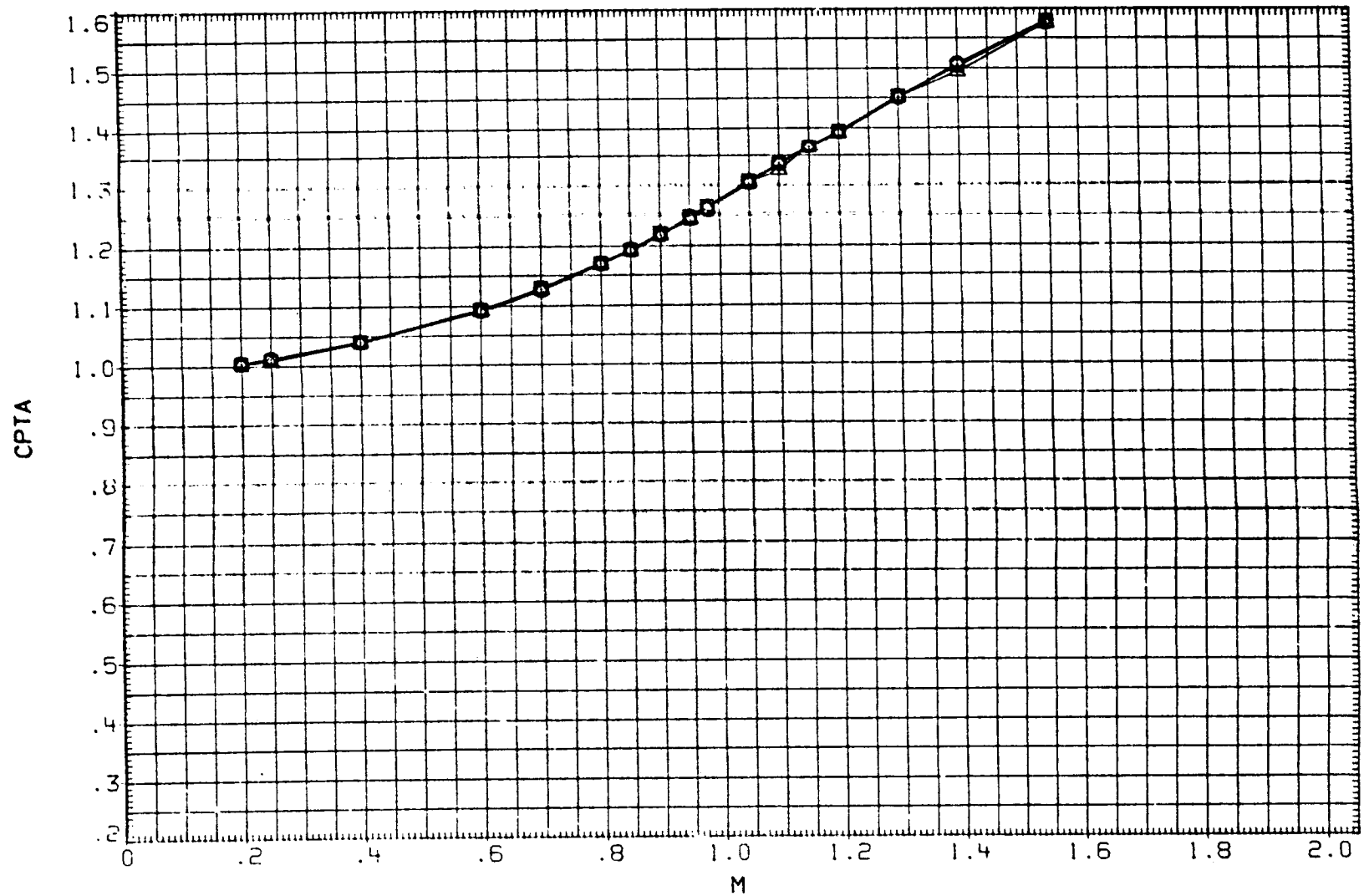


FIG. 28 0A232 SIDE PROBE CPTA VERSUS MACH NUMBER LEFT,RIGHT SIDES COMPARED
DATA INTERPOLATED WITH MACH,ALPHA,BETA

(D)ALPHA = 12.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB06	○	0A232 AEDC 16T TF431 LFN.1S RA .2P/S	2.000	.000
AVRB11	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB04	◇	0A232 AEDC 16T TF431 LFN.1S RA .2P/S	.000	.000
AVRB12	△	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

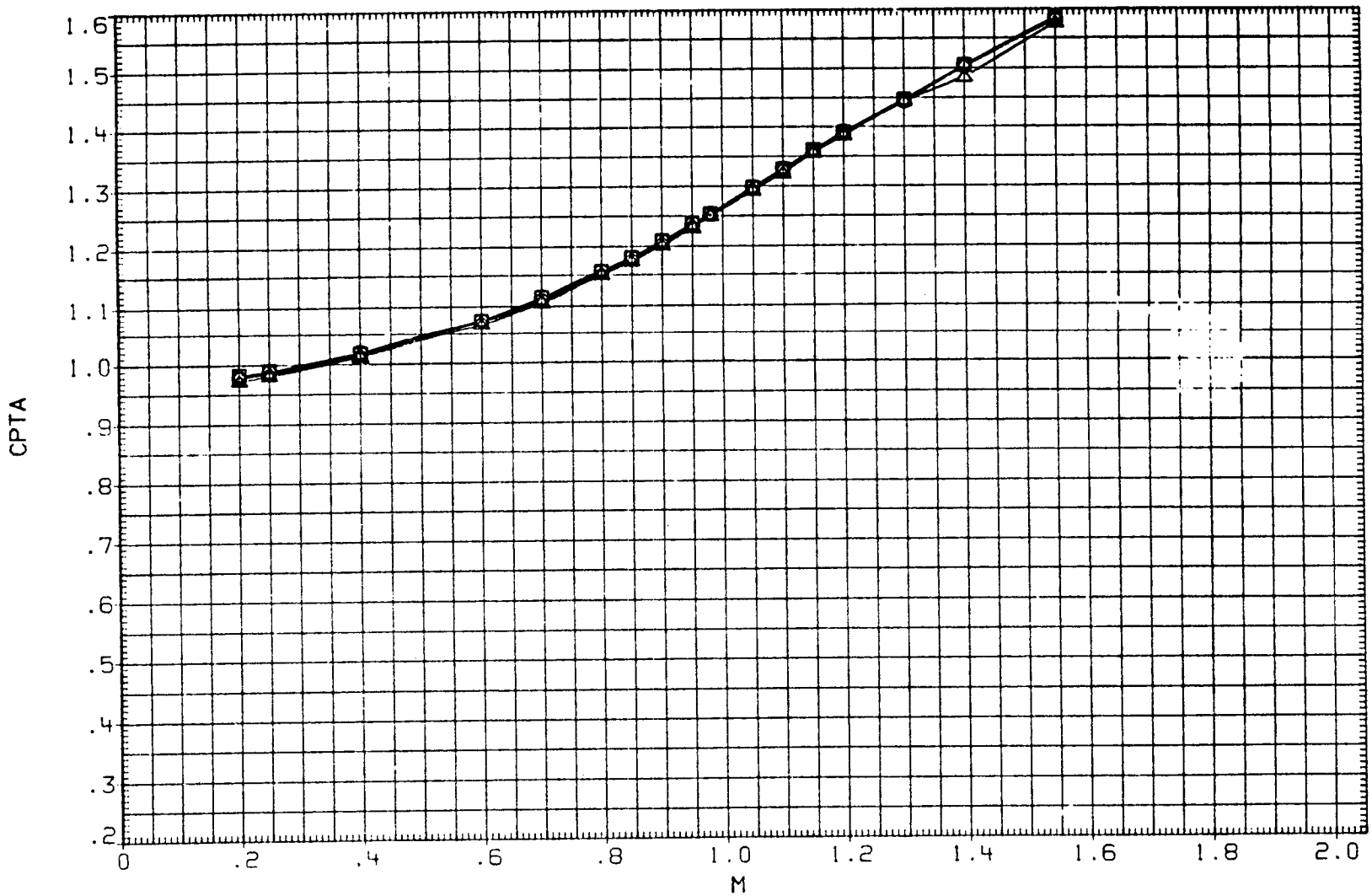


FIG. 28 0A232 SIDE PROBE CPTA VERSUS MACH NUMBER LEFT,RIGHT SIDES COMPARED
DATA INTERPOLATED WITH MACH,ALPHA,BETA

(E)ALPHA = 16.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB06	○	OA232 AEDC 16T TF431 LFN.1S RA .2P/S	2.000	.000
AVRB11	□	OA232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB04	◇	OA232 AEDC 16T TF431 LFN.1S RA .2P/S	.000	.000
AVRB12	△	OA232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

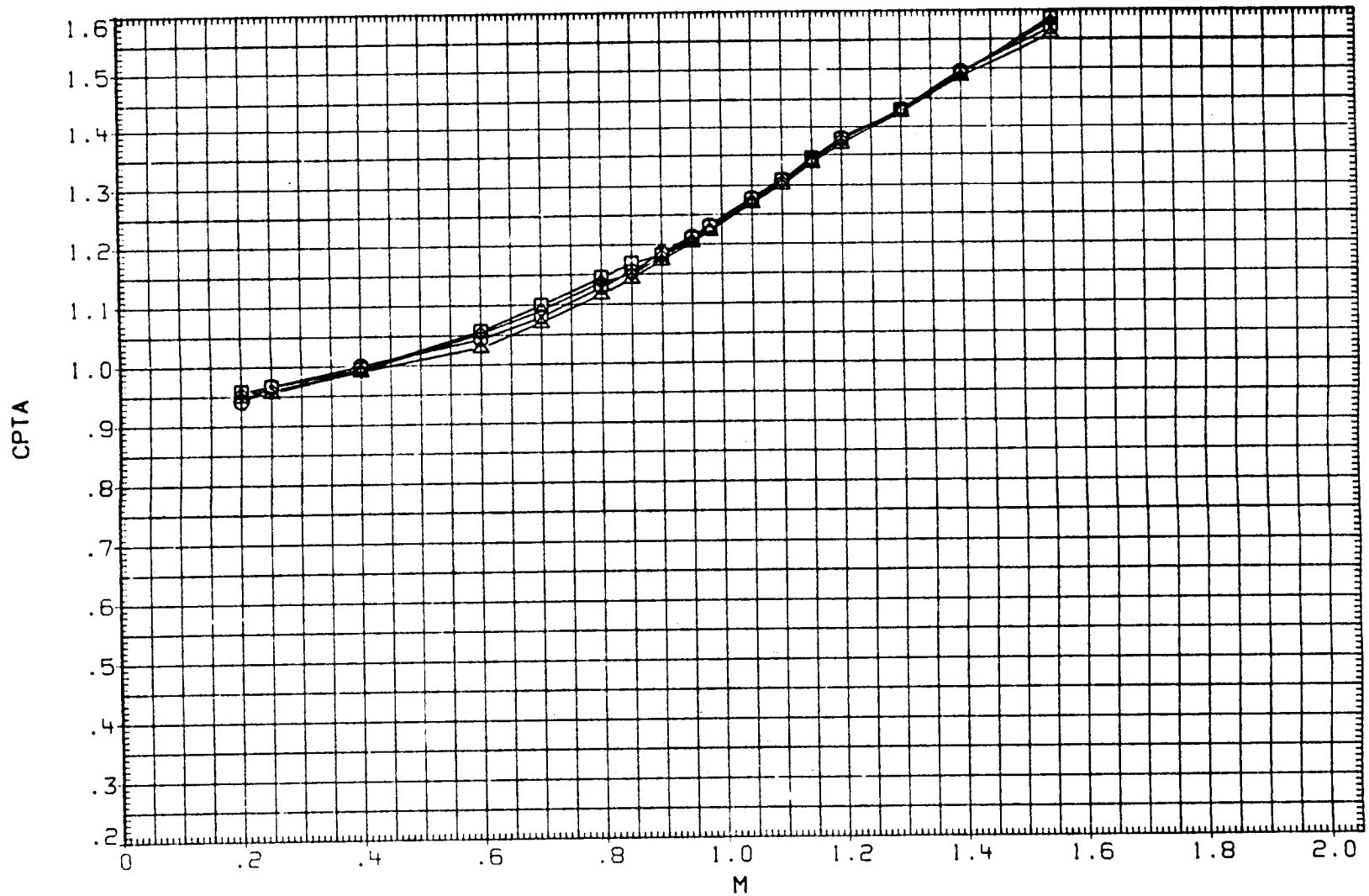


FIG. 28 OA232 SIDE PROBE CPTA VERSUS MACH NUMBER LEFT,RIGHT SIDES COMPARED
DATA INTERPOLATED WITH MACH,ALPHA,BETA

(F)ALPHA = 18.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVRB14	○	0A232	AEDC 16T TF431	LA .2A	RFN.1S		.000	.000
AVRB15	□	0A232	AEDC 16T TF431	LA .2A	RFN.1S		2.000	.000

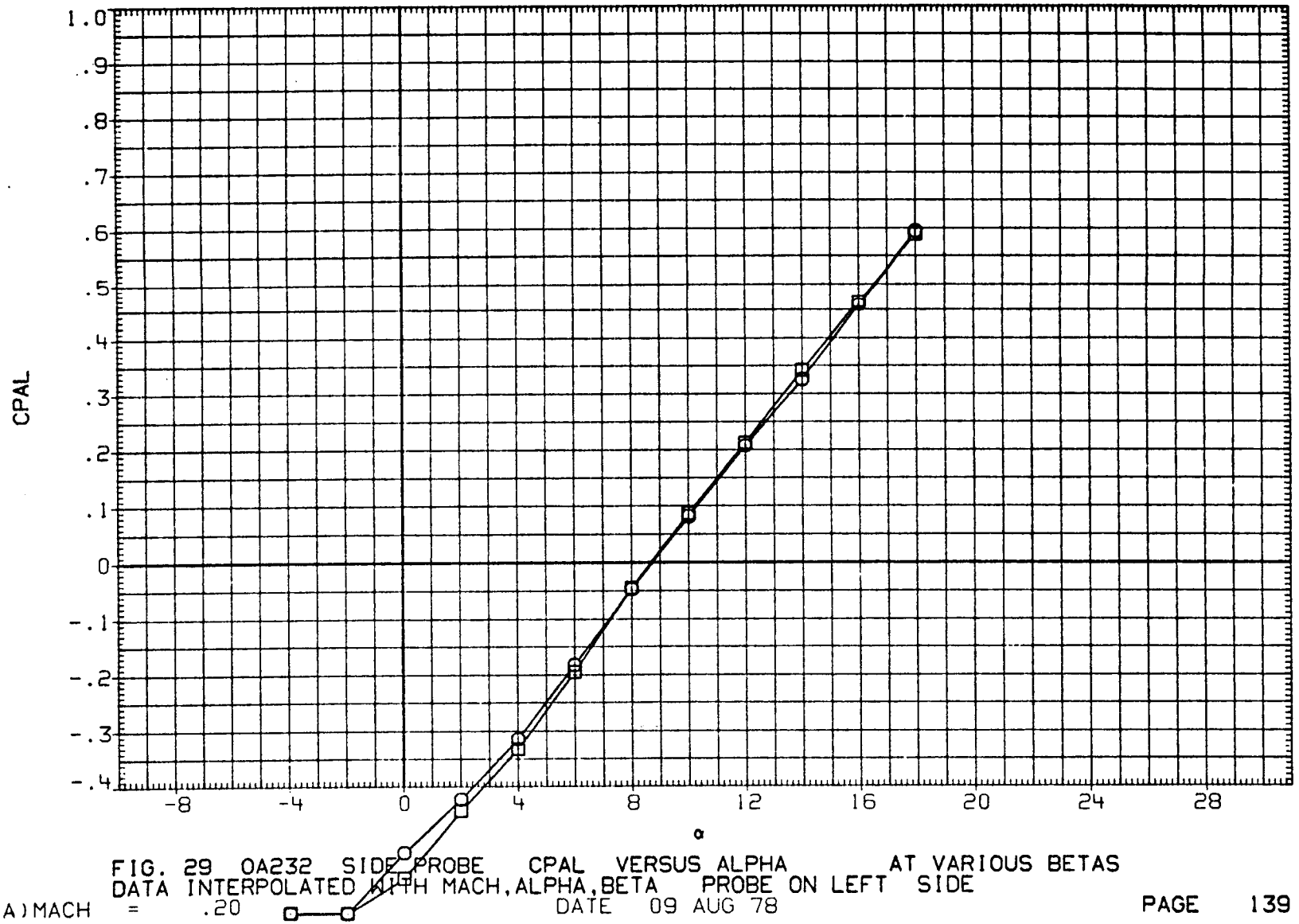


FIG. 29 0A232 SIDE PROBE CPAL VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON LEFT SIDE

(A)MACH = .20 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVR814	○	0A232	AEDC	16T	TF431	LA .2A RFN.1S	.000	.000
AVR815	□	0A232	AEDC	16T	TF431	LA .2A RFN.1S	2.000	.000

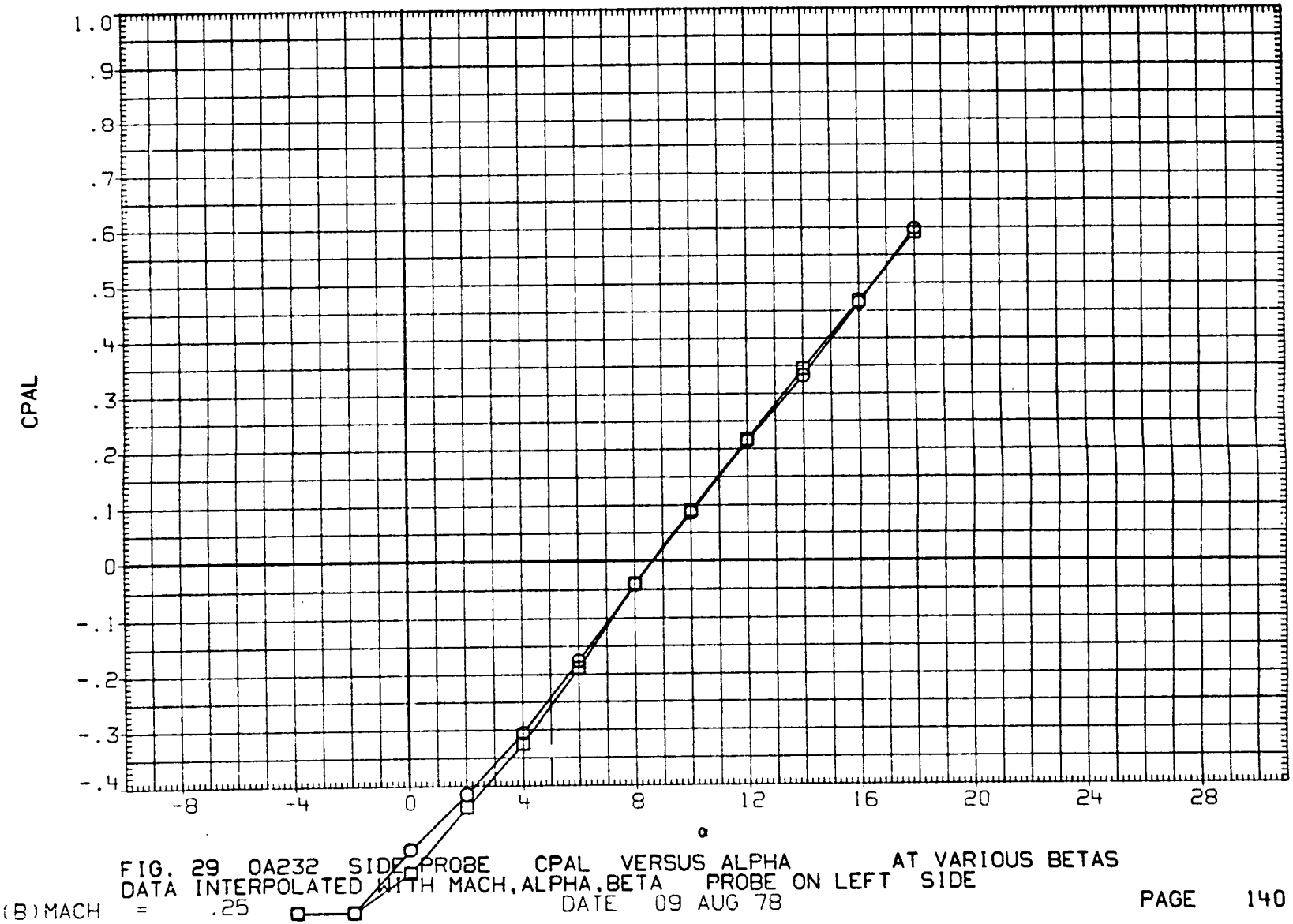


FIG. 29 0A232 SIDE PROBE CPAL VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON LEFT SIDE

(B) MACH = .25 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRB14	○	0A232	AEDC 16T TF431	LA .2A	RFN.1S	.000	.000
AVRB15	□	0A232	AEDC 16T TF431	LA .2A	RFN.1S	2.000	.000

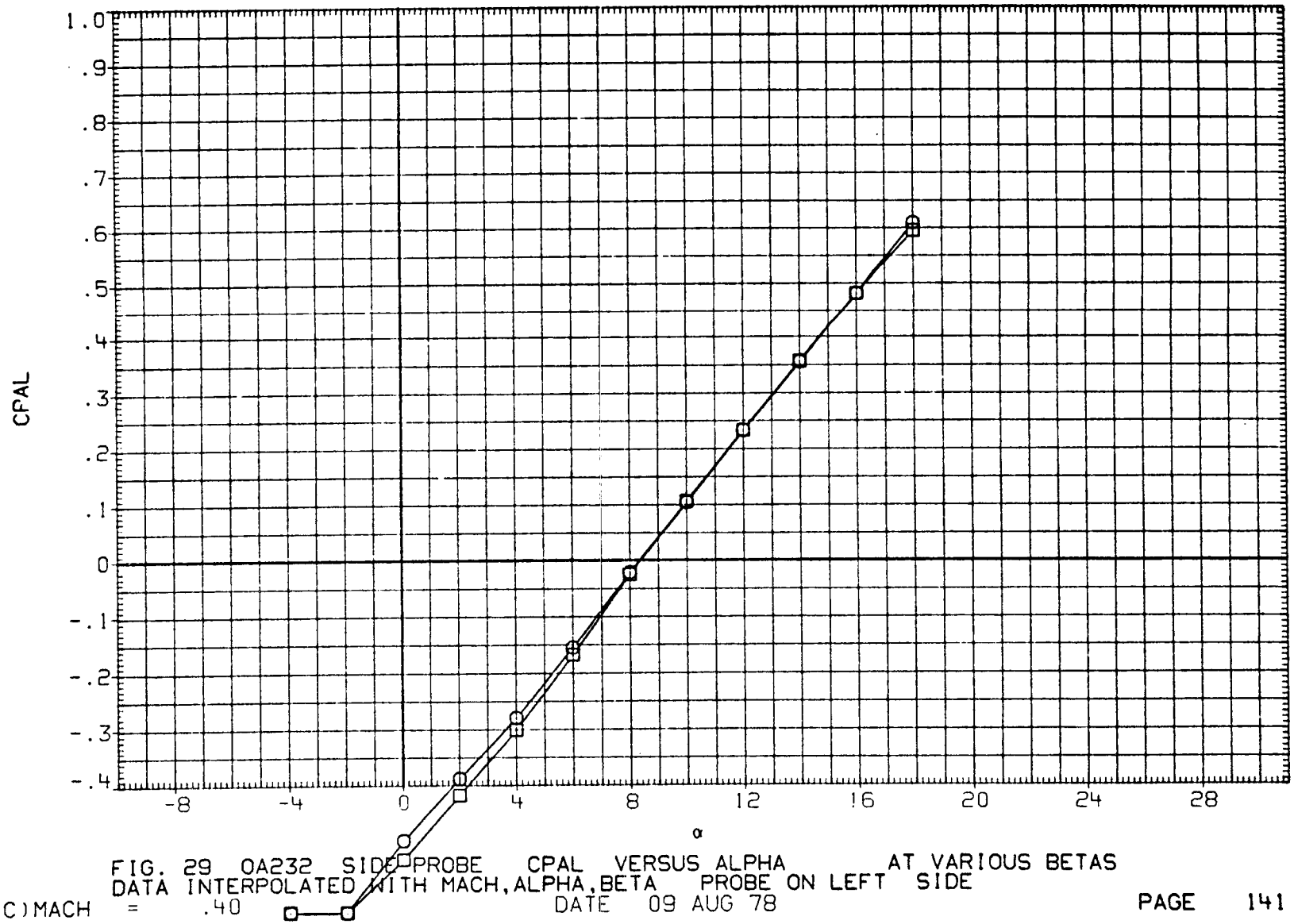


FIG. 29 0A232 SIDE PROBE CPAL VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON LEFT SIDE

(C)MACH = .40 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVRB14	○	0A232	AEDC 16T TF431	LA .2A	RFN.1S		.000	.000
AVRB15	□	0A232	AEDC 16T TF431	LA .2A	RFN.1S		2.000	.000

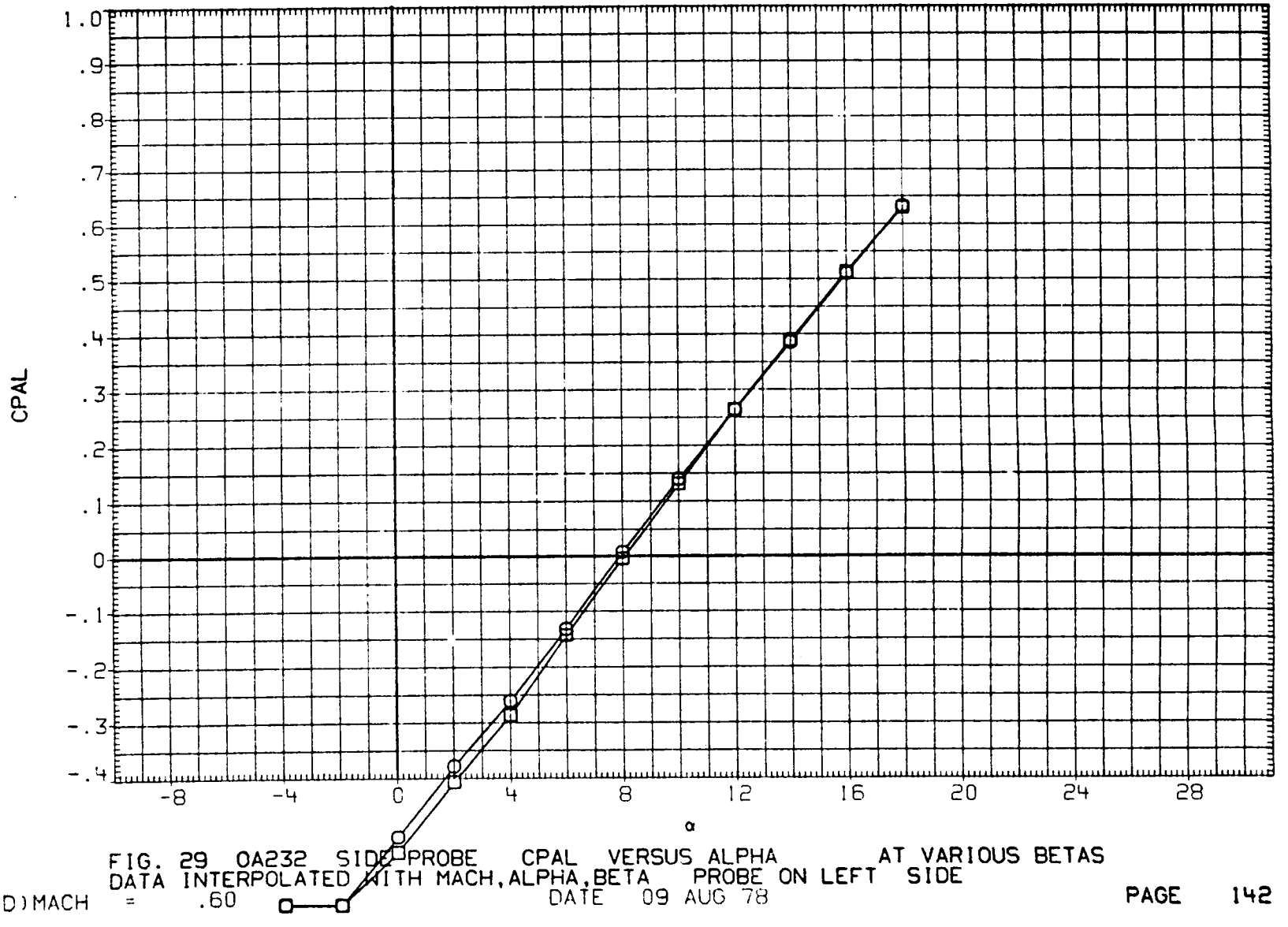


FIG. 29 0A232 SIDE PROBE CPAL VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON LEFT SIDE

(D)MACH = .60 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRB14	○	0A232	AEDC 16T TF431	LA .2A	RFN.1S	.000	.000
AVRB15	□	0A232	AEDC 16T TF431	LA .2A	RFN.1S	2.000	.000

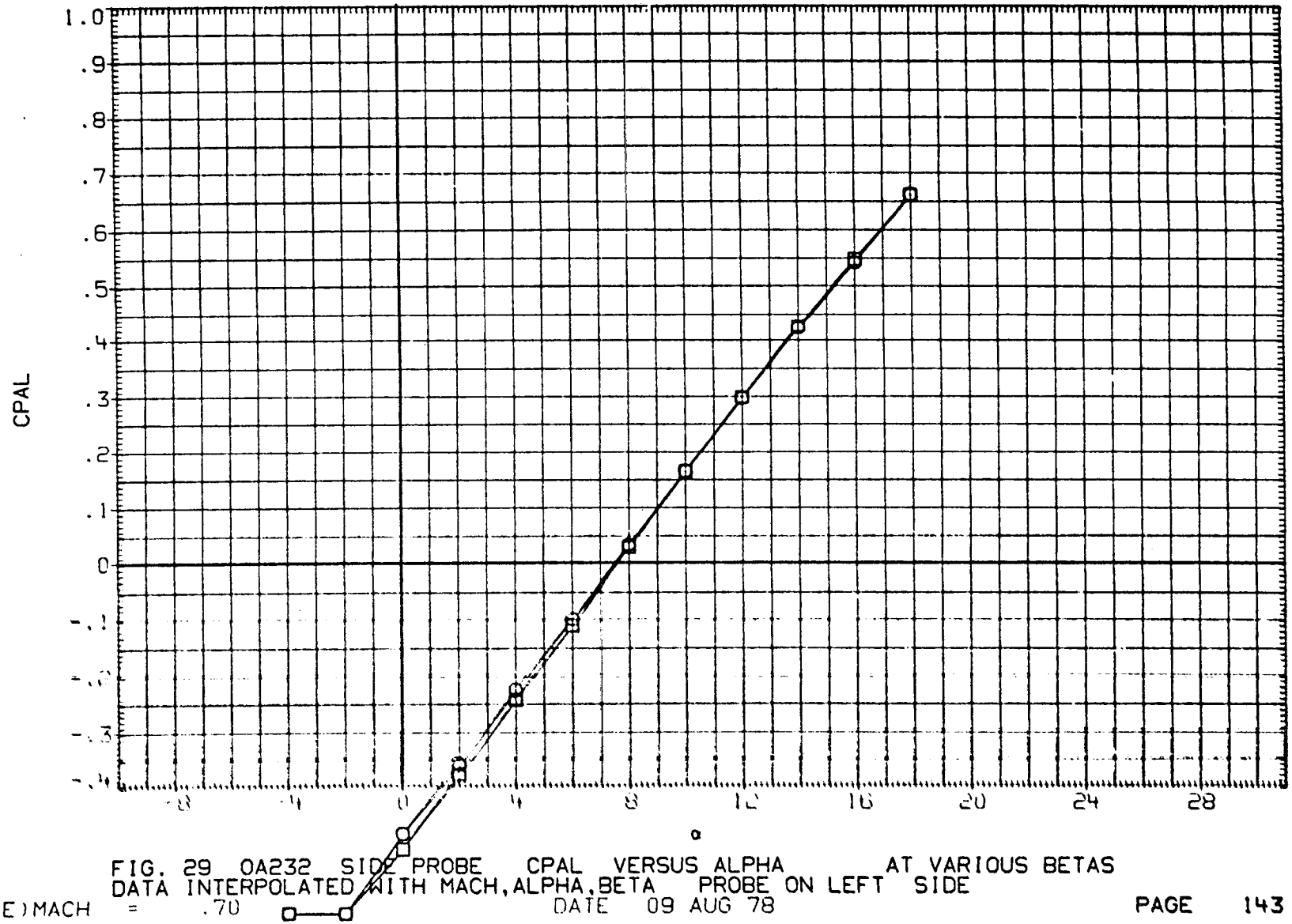


FIG. 29 0A232 SIDE PROBE CPAL VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON LEFT SIDE

(E)MACH = .70 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRB14	○	0A232	AEDC 16T TF431	LA .2A	RFN.1S	.000	.000
AVRB15	□	0A232	AEDC 16T TF431	LA .2A	RFN.1S	2.000	.000

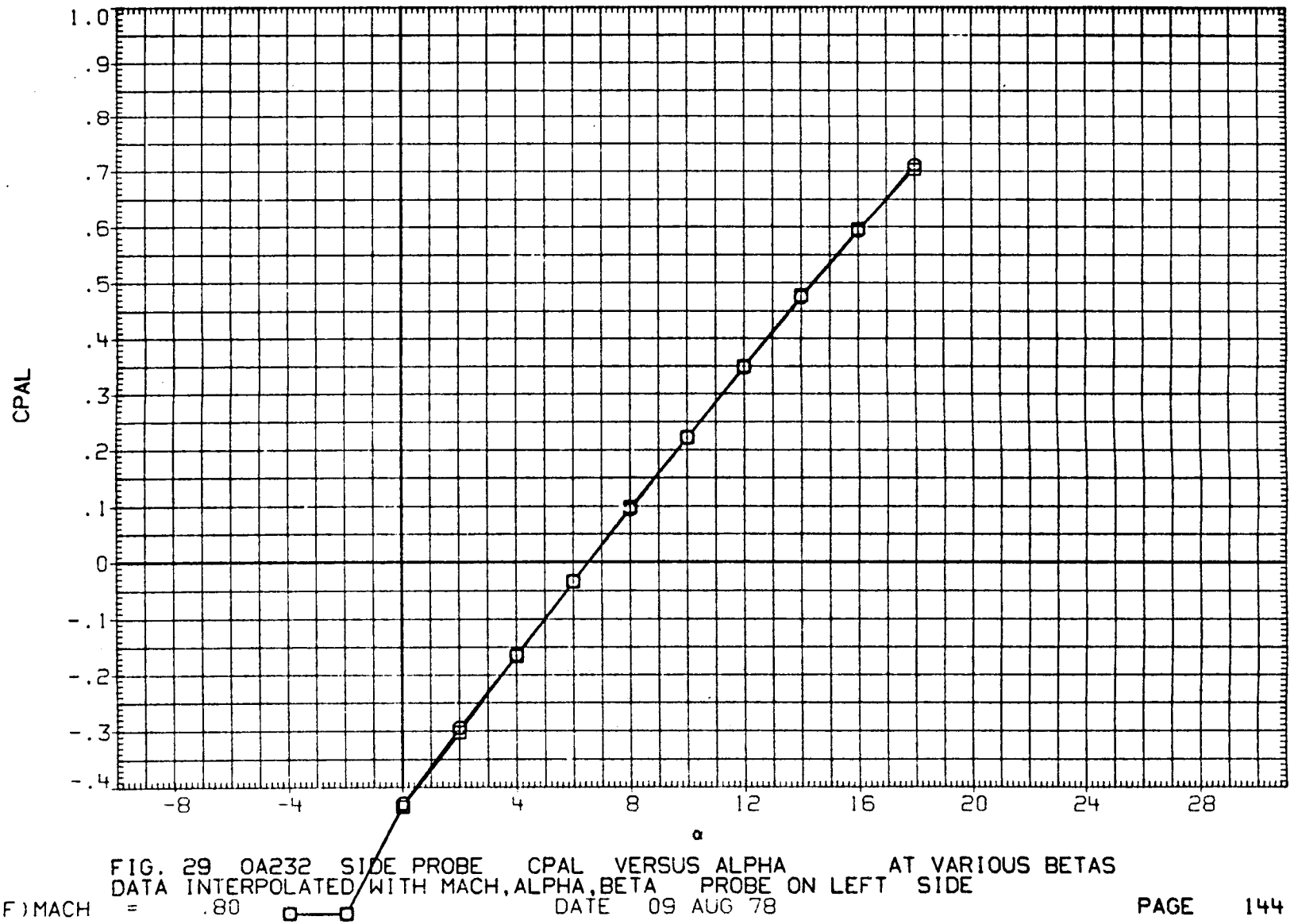


FIG. 29 0A232 SIDE PROBE CPAL VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON LEFT SIDE

(F)MACH = .80 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRB14	○	0A232	AEDC 16T TF431	LA .2A	RFN.1S	.000	.000
AVRB15	□	0A232	AEDC 16T TF431	LA .2A	RFN.1S	2.000	.000

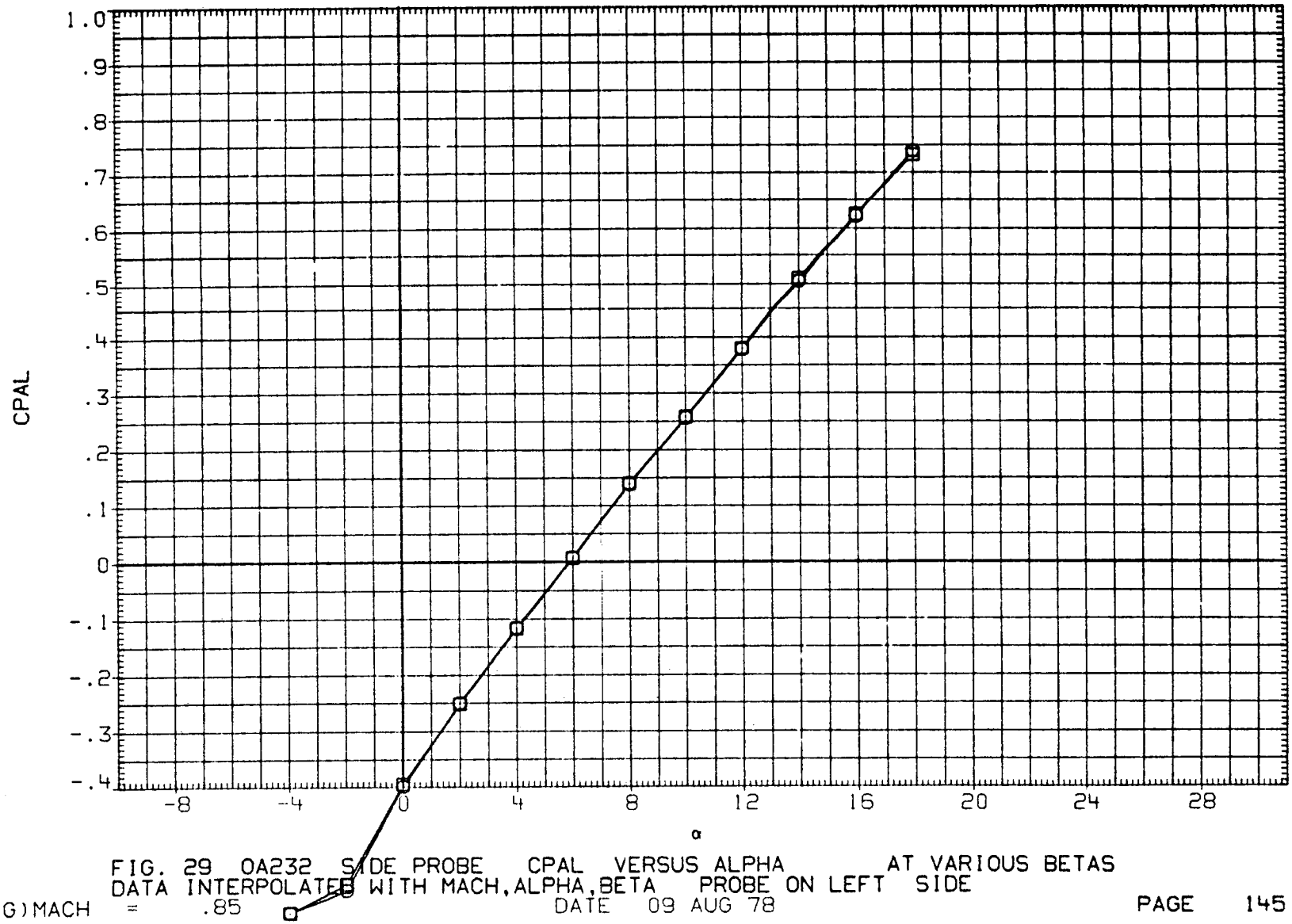


FIG. 29 0A232 SIDE PROBE CPAL VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON LEFT SIDE

(G)MACH = .85 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVRB14	○	0A232	AEDC	16T	TF431	LA .2A RFN.1S	.000	.000
AVRB15	□	0A232	AEDC	16T	TF431	LA .2A RFN.1S	2.000	.000

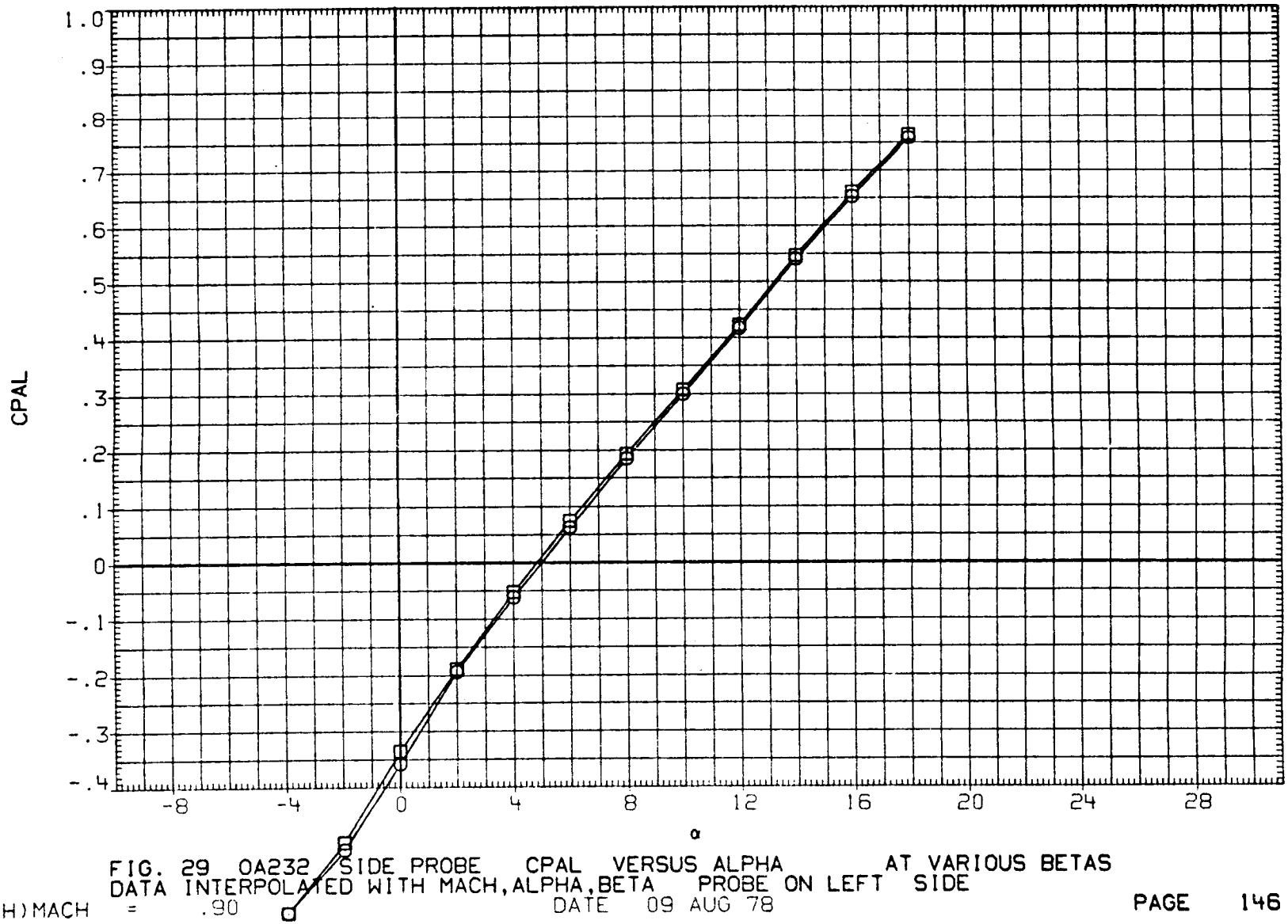


FIG. 29 0A232 SIDE PROBE CPAL VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON LEFT SIDE

(H)MACH = .90 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRB14	○	0A232	AEDC 16T TF431	LA .2A	RFN.1S	.000	.000
AVRB15	□	0A232	AEDC 16T TF431	LA .2A	RFN.1S	2.000	.000

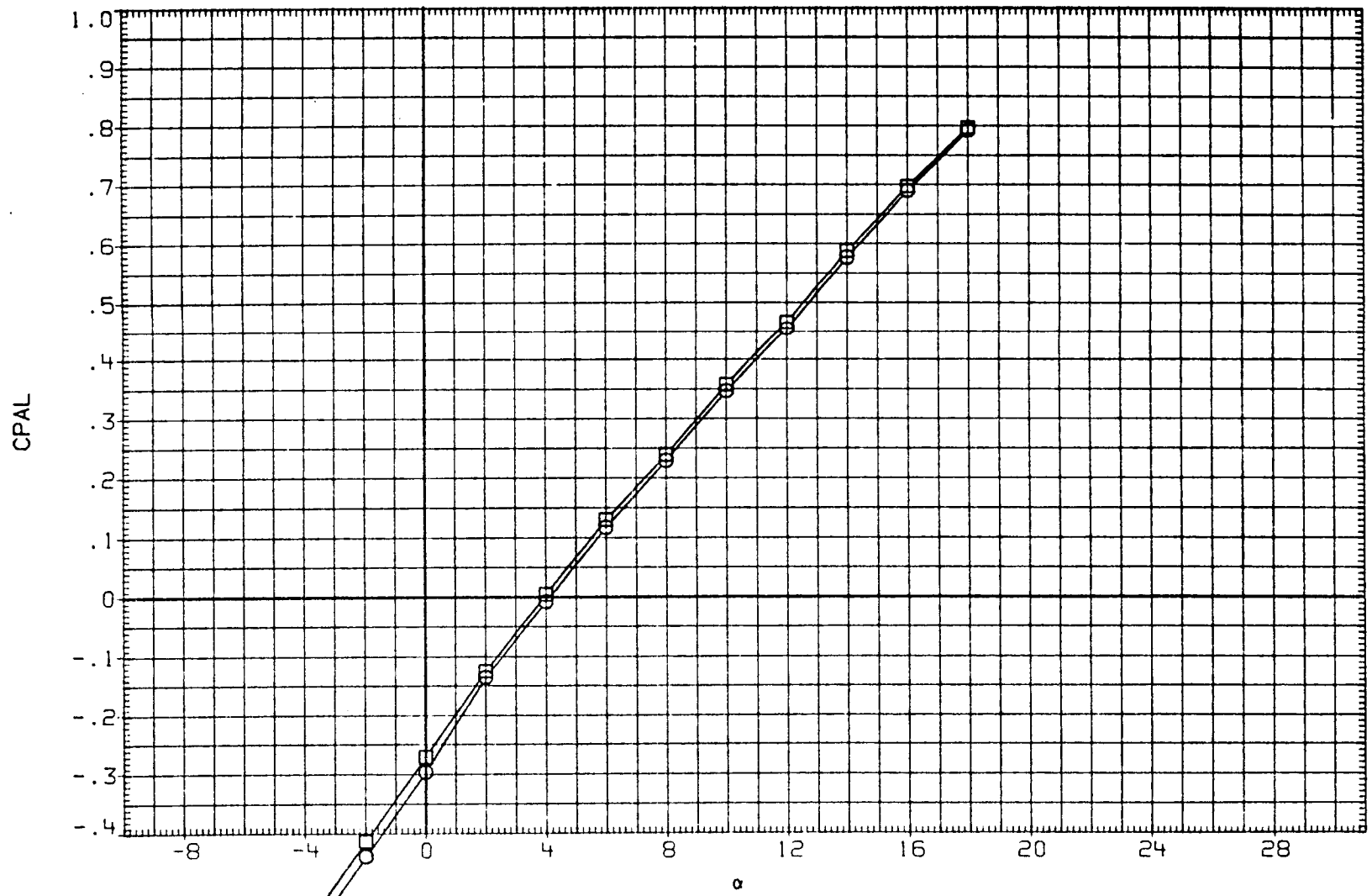


FIG. 29 0A232 SIDE PROBE CPAL VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON LEFT SIDE

(I)MACH = .95 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVRB14	○	0A232	AEDC	16T	TF431	LA .2A RFN.IS	.000	.000
AVRB15	□	0A232	AEDC	16T	TF431	LA .2A RFN.IS	2.000	.000

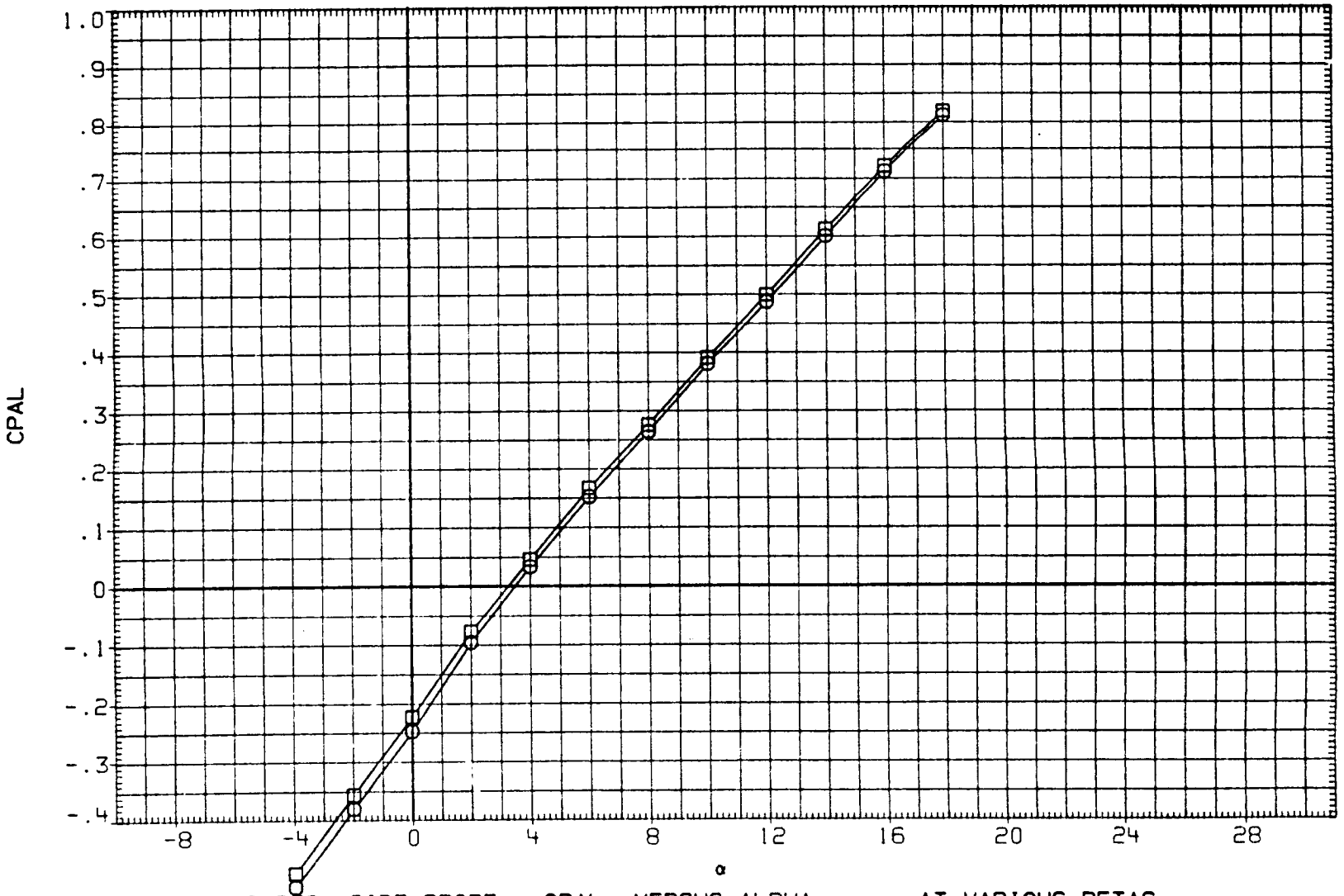


FIG. 29 0A232 SIDE PROBE CPAL VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON LEFT SIDE

(J)MACH = .98 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVR814	○	0A232	AEDC	16T	TF431	LA .2A RFN.1S	.000	.000
AVR815	□	0A232	AEDC	16T	TF431	LA .2A RFN.1S	2.000	.000

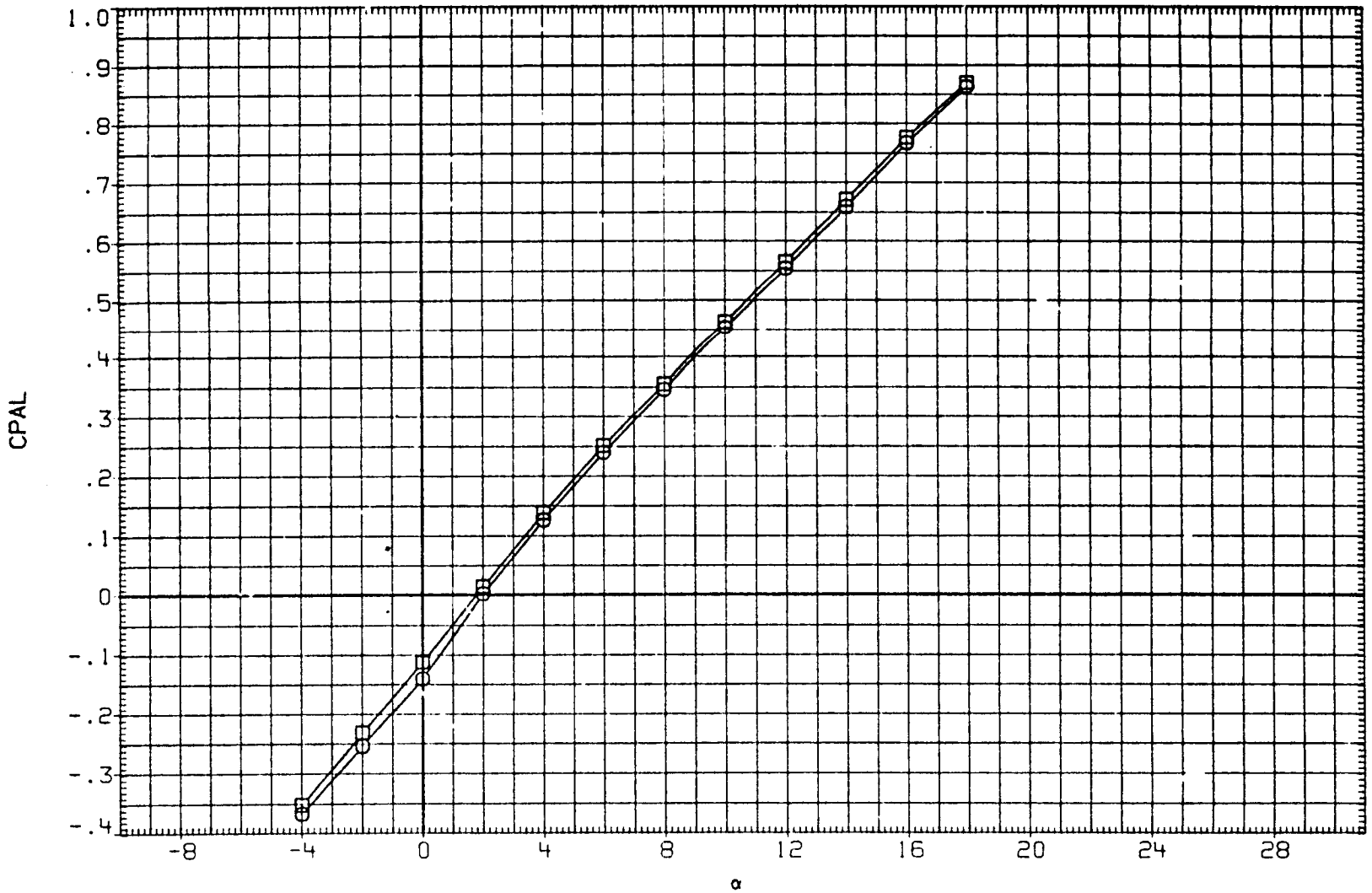


FIG. 29 0A232 SIDE PROBE CPAL VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON LEFT SIDE

(K)MACH = 1.05 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRB14	○	0A232	AEDC 16T TF431	LA .2A	RFN.1S	.000	.000
AVRB15	□	0A232	AEDC 16T TF431	LA .2A	RFN.1S	2.000	.000

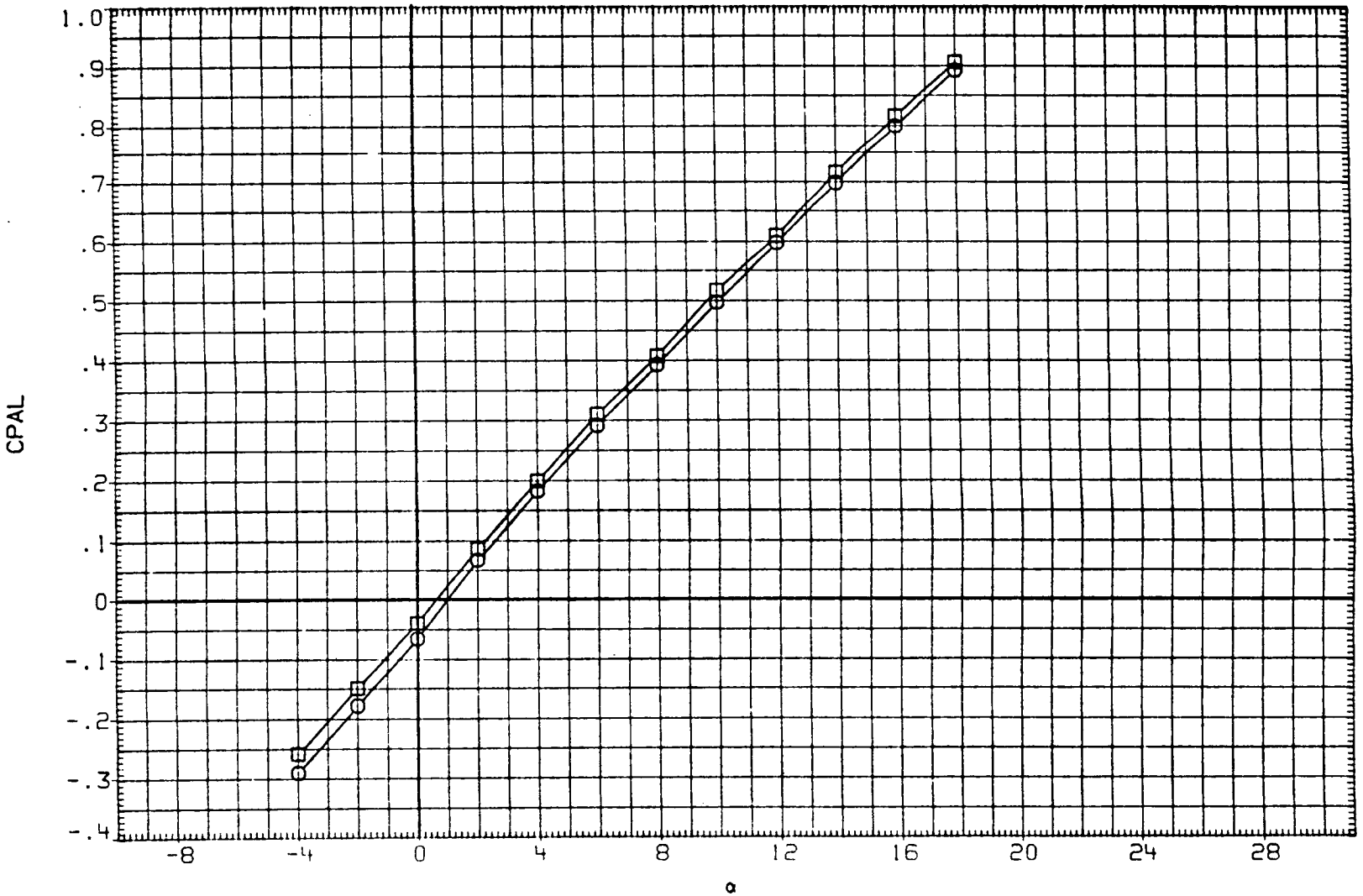


FIG. 29 0A232 SIDE PROBE CPAL VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON LEFT SIDE

(L)MACH = 1.10 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRB14	○	0A232	AEDC 16T TF431	LA .2A	RFN.1S	.000	.000
AVRB15	□	0A232	AEDC 16T TF431	LA .2A	RFN.1S	2.000	.000

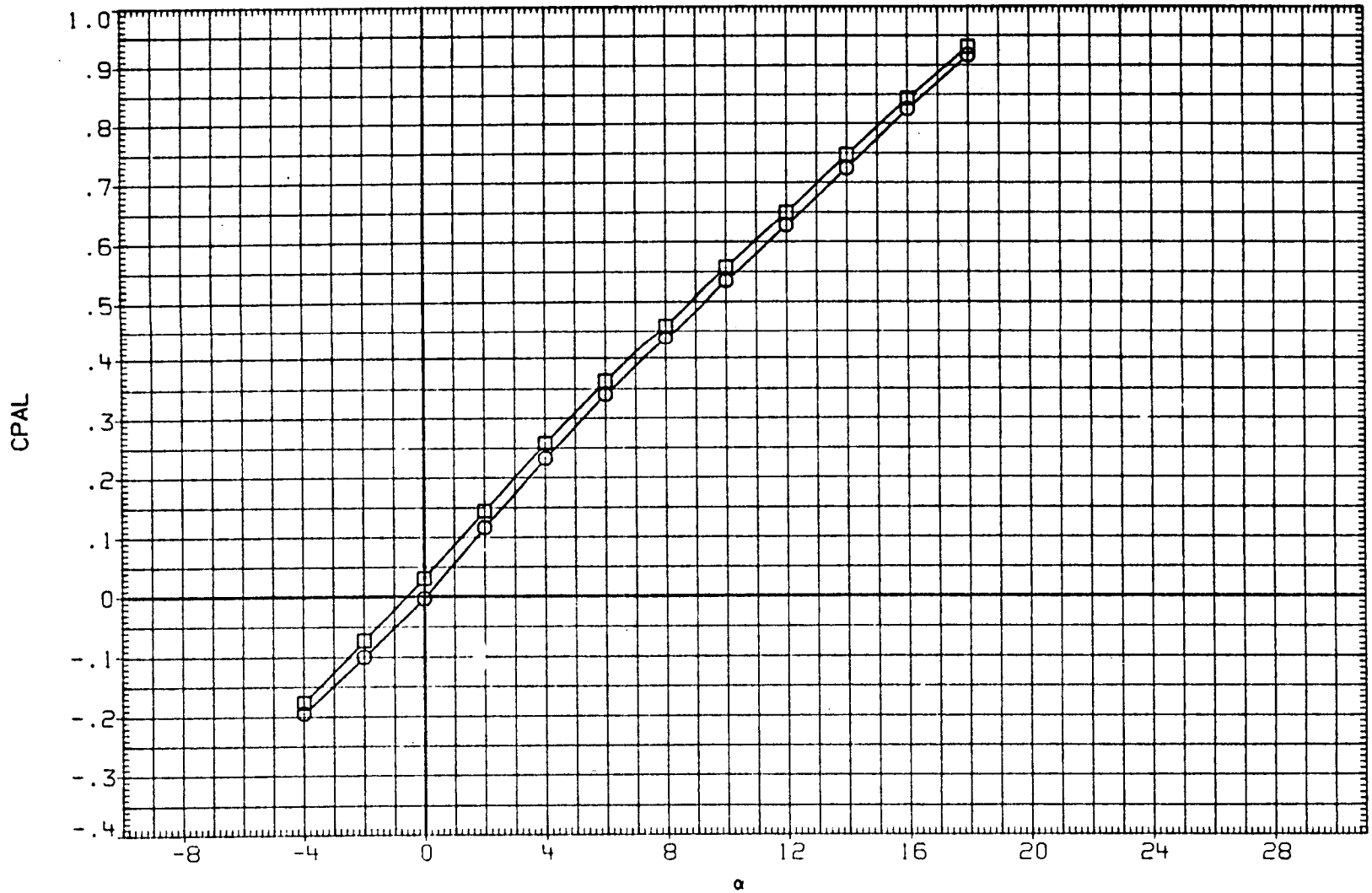


FIG. 29 0A232 SIDE PROBE CPAL VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON LEFT SIDE

(M)MACH = 1.15 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVRB14	○	0A232	AEDC 16T TF431	LA .2A	RFN.15		.000	.000
AVRB15	□	0A232	AEDC 16T TF431	LA .2A	RFN.15		2.000	.000

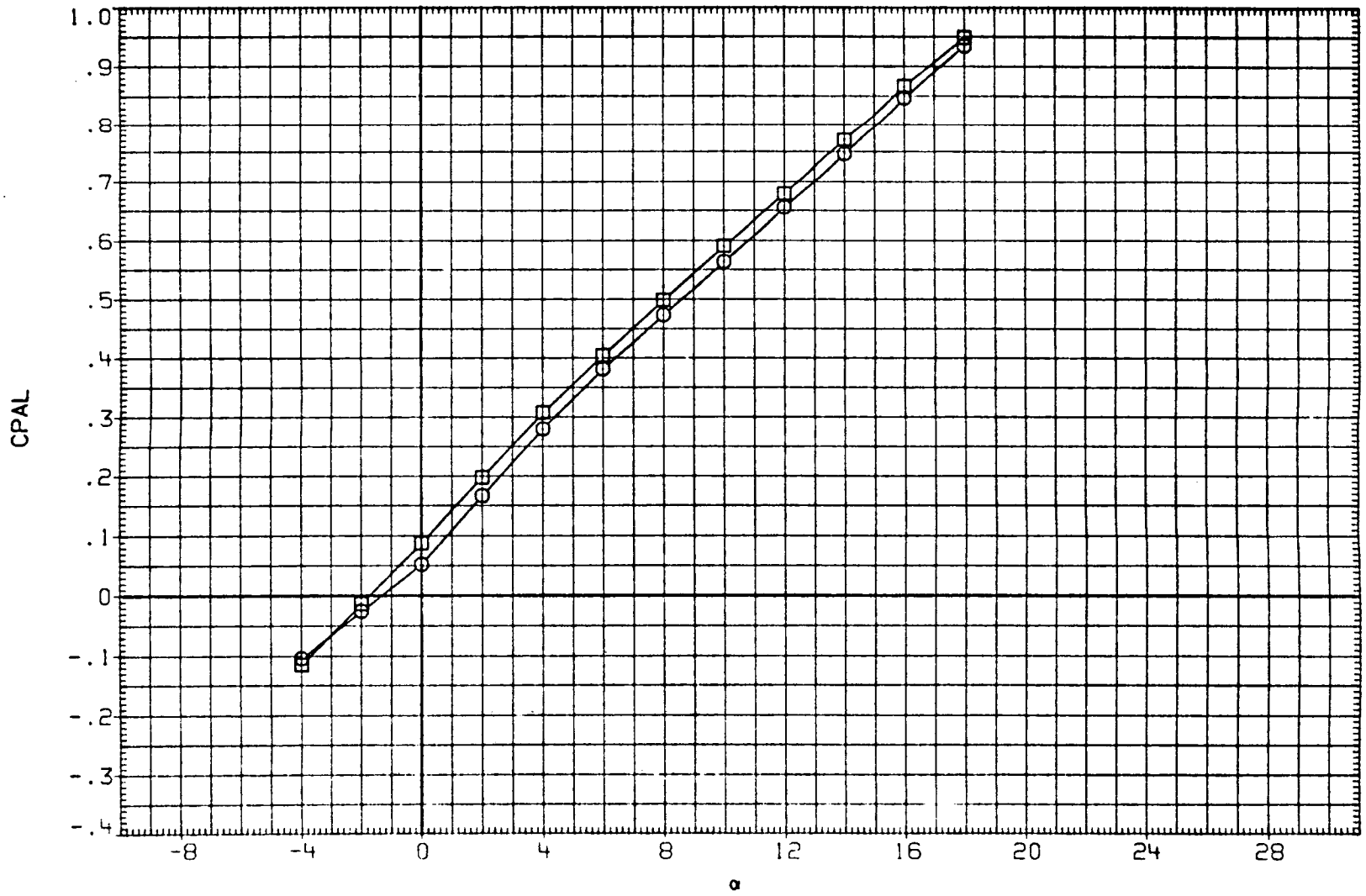


FIG. 29 0A232 SIDE PROBE CPAL VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON LEFT SIDE

(N)MACH = 1.20 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION		BETA	PHI
AVRB14	○	0A232 AEDC 16T TF431 LA .2A	RFN.1S	.000	.000
AVRB15	□	0A232 AEDC 16T TF431 LA .2A	RFN.1S	2.000	.000

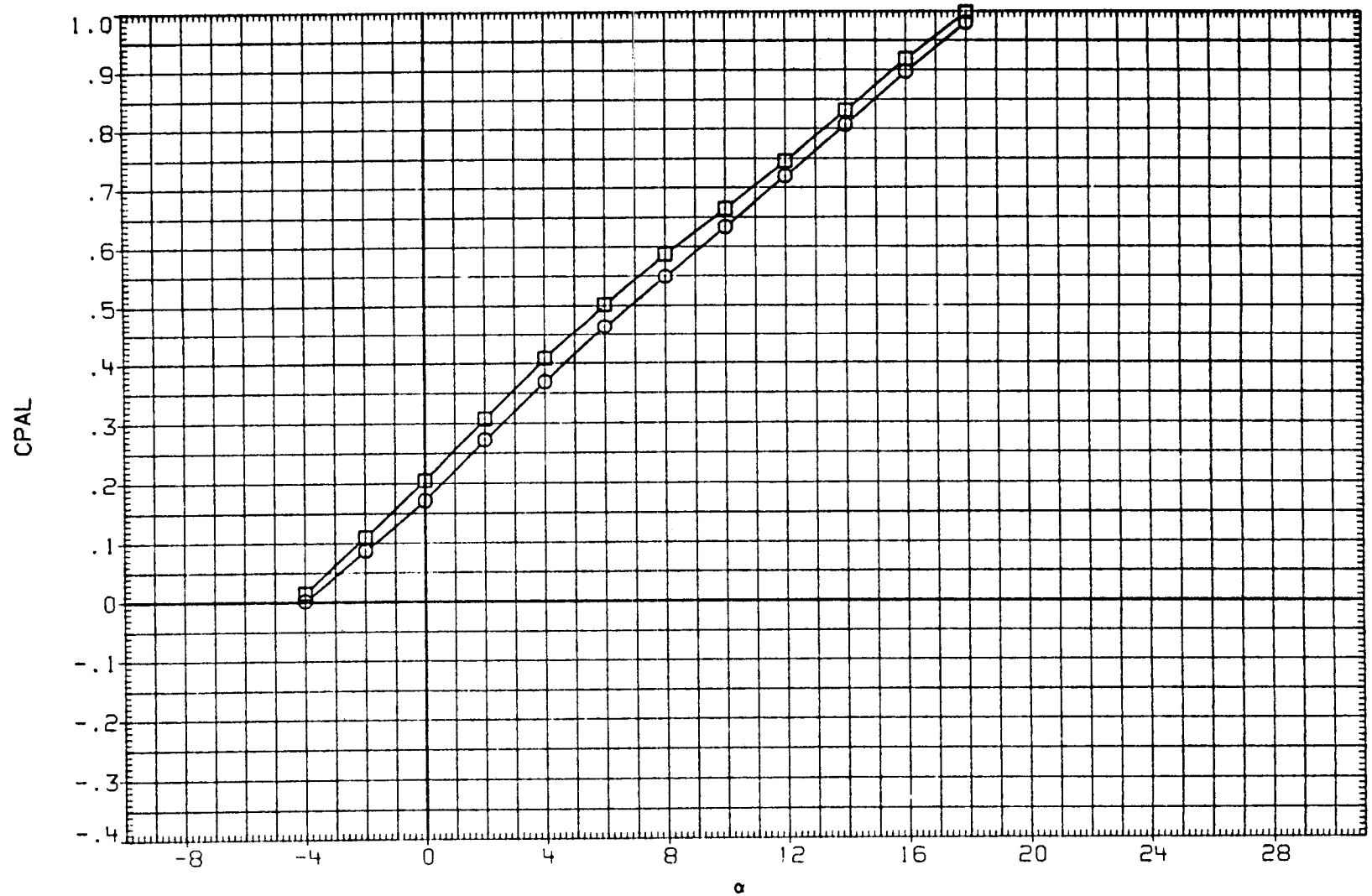


FIG. 29 0A232 SIDE PROBE CPAL VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON LEFT SIDE

(O) MACH = 1.30 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRB14	○	0A232	AEDC 16T TF431	LA .2A	RFN.1S	.000	.000
AVRB15	□	0A232	AEDC 16T TF431	LA .2A	RFN.1S	2.000	.000

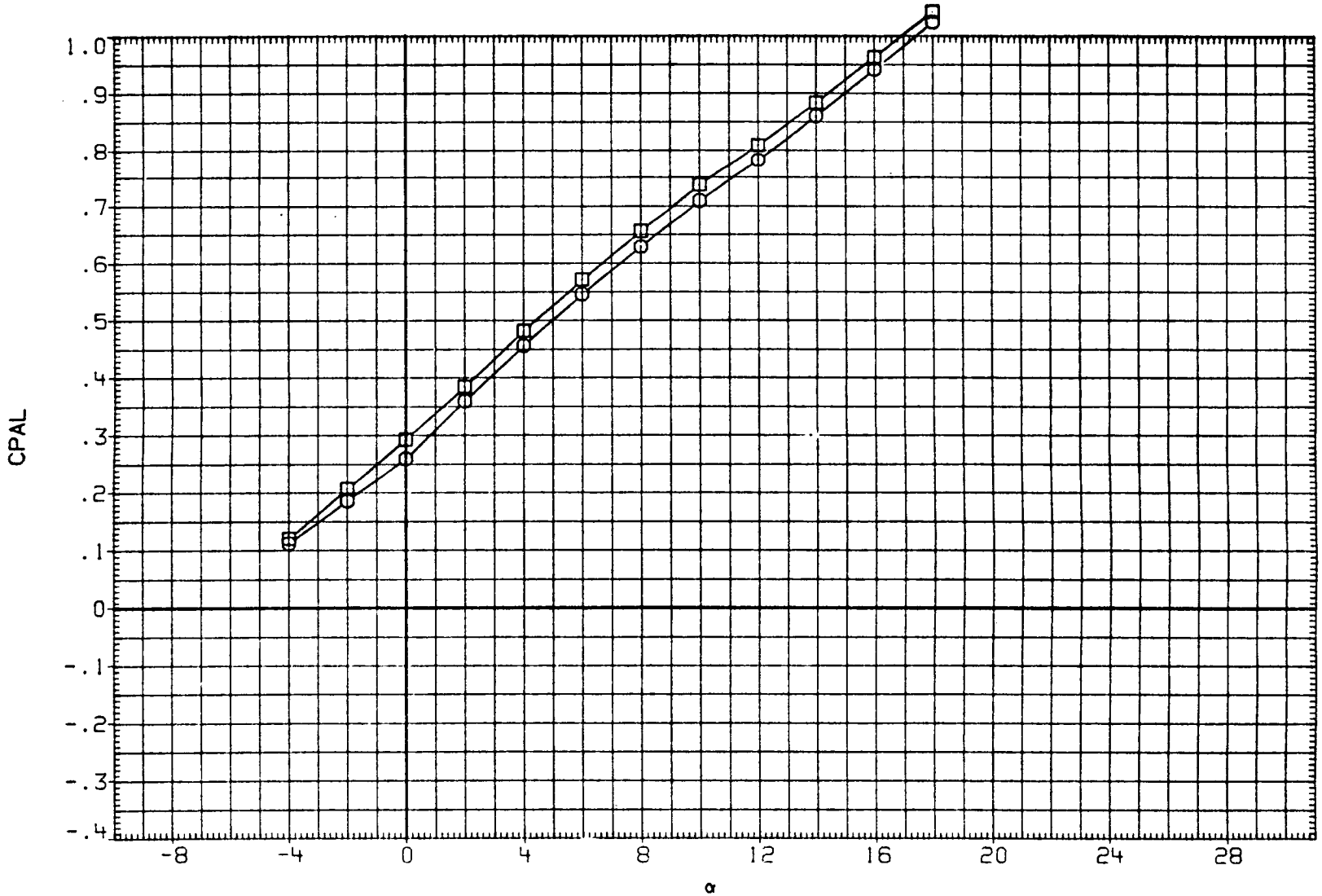


FIG. 29 0A232 SIDE PROBE CPAL VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON LEFT SIDE

(P)MACH = 1.40 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVRB14	○	0A232	AEDC	16T	TF431	LA .2A RFN.1S	.000	.000
AVRB15	□	0A232	AEDC	16T	TF431	LA .2A RFN.1S	2.000	.000

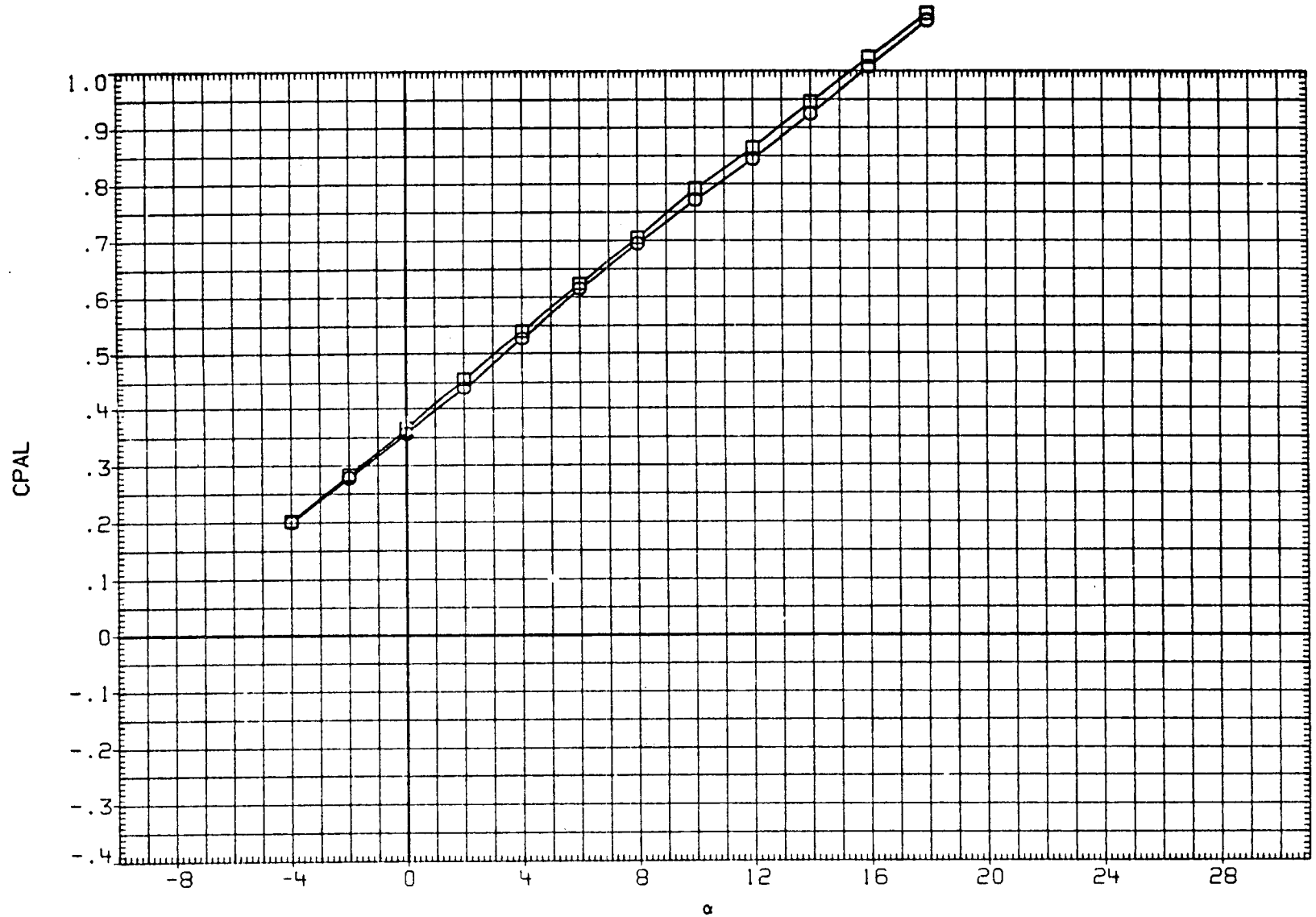


FIG. 29 0A232 SIDE PROBE CPAL VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON LEFT SIDE

(Q) MACH = 1.55 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB12	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

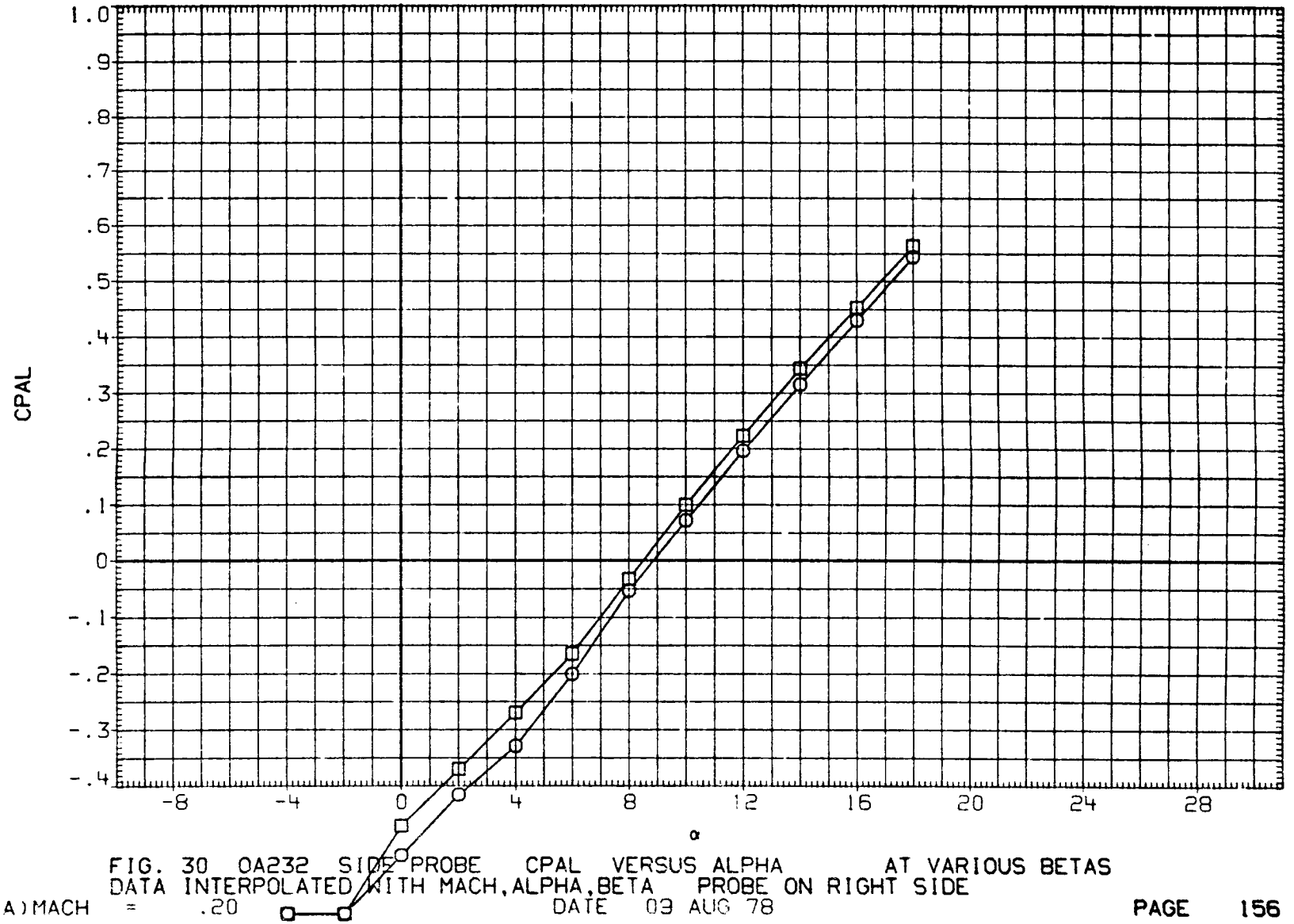


FIG. 30 0A232 SIDE PROBE CPAL VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE

(A)MACH = .20 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB12	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

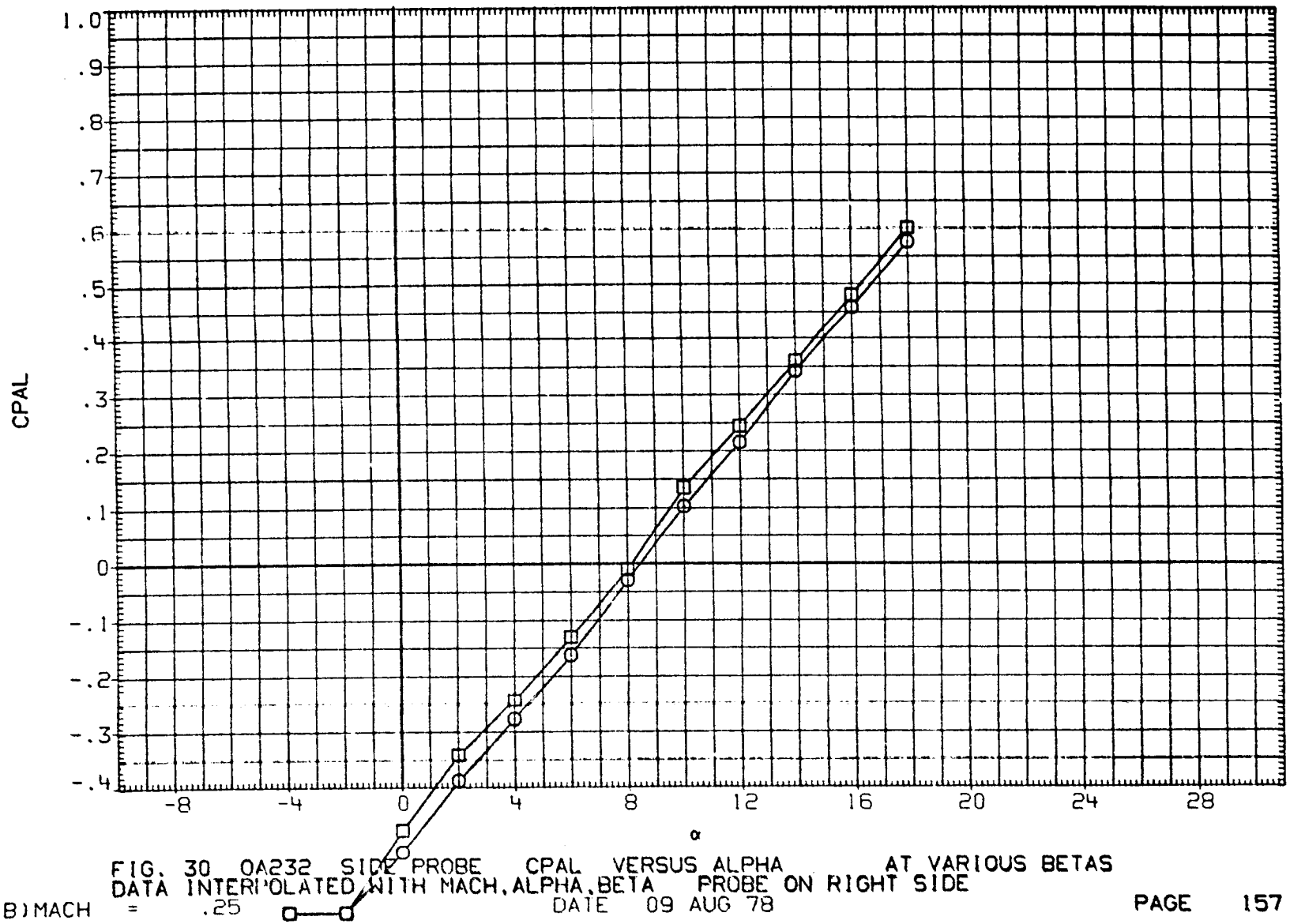


FIG. 30 0A232 SIDE PROBE CPAL VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON RIGHT SIDE

(B)MACH = .25 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB12	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

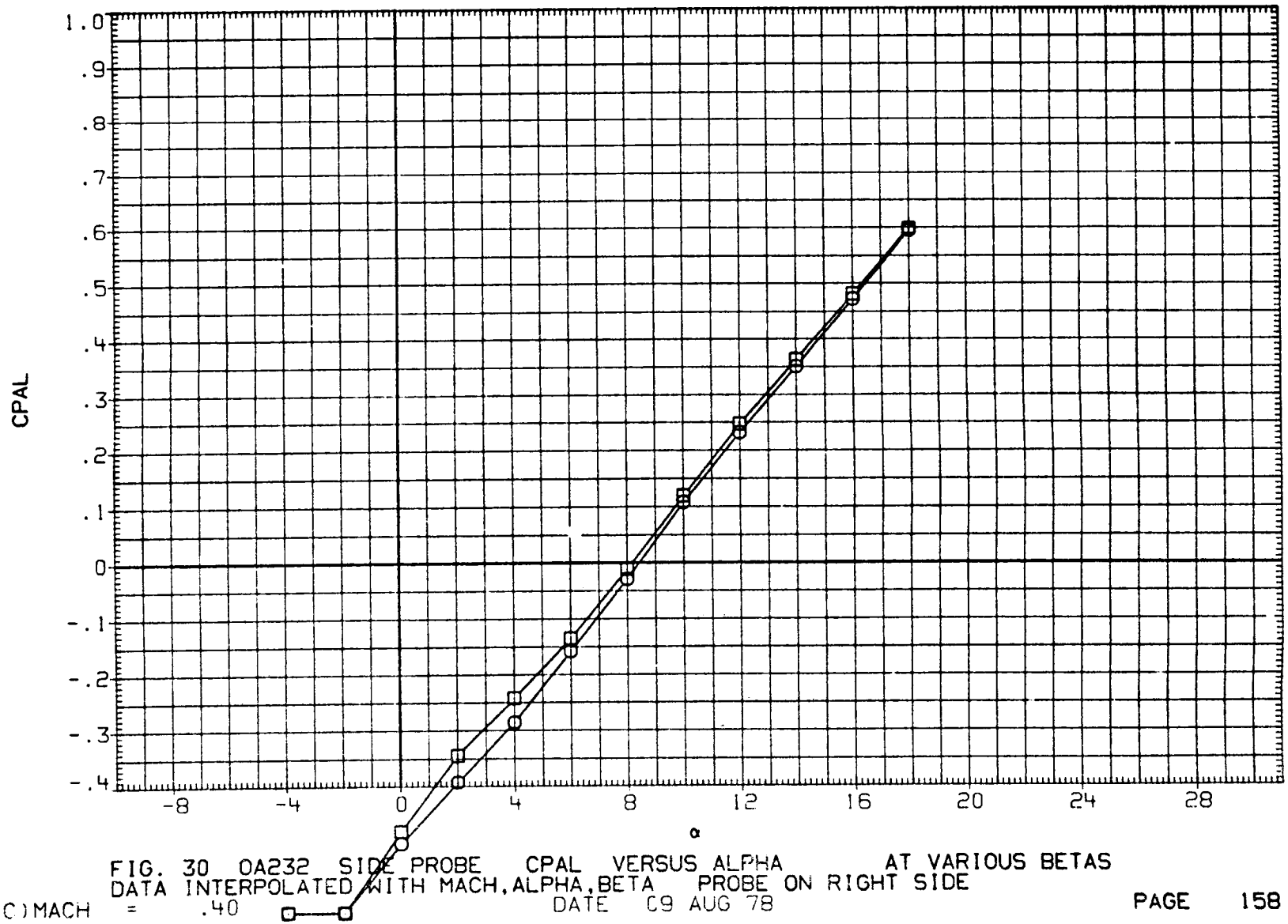


FIG. 30 0A232 SIDE PROBE CPAL VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON RIGHT SIDE

(C) MACH = .40 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB12	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

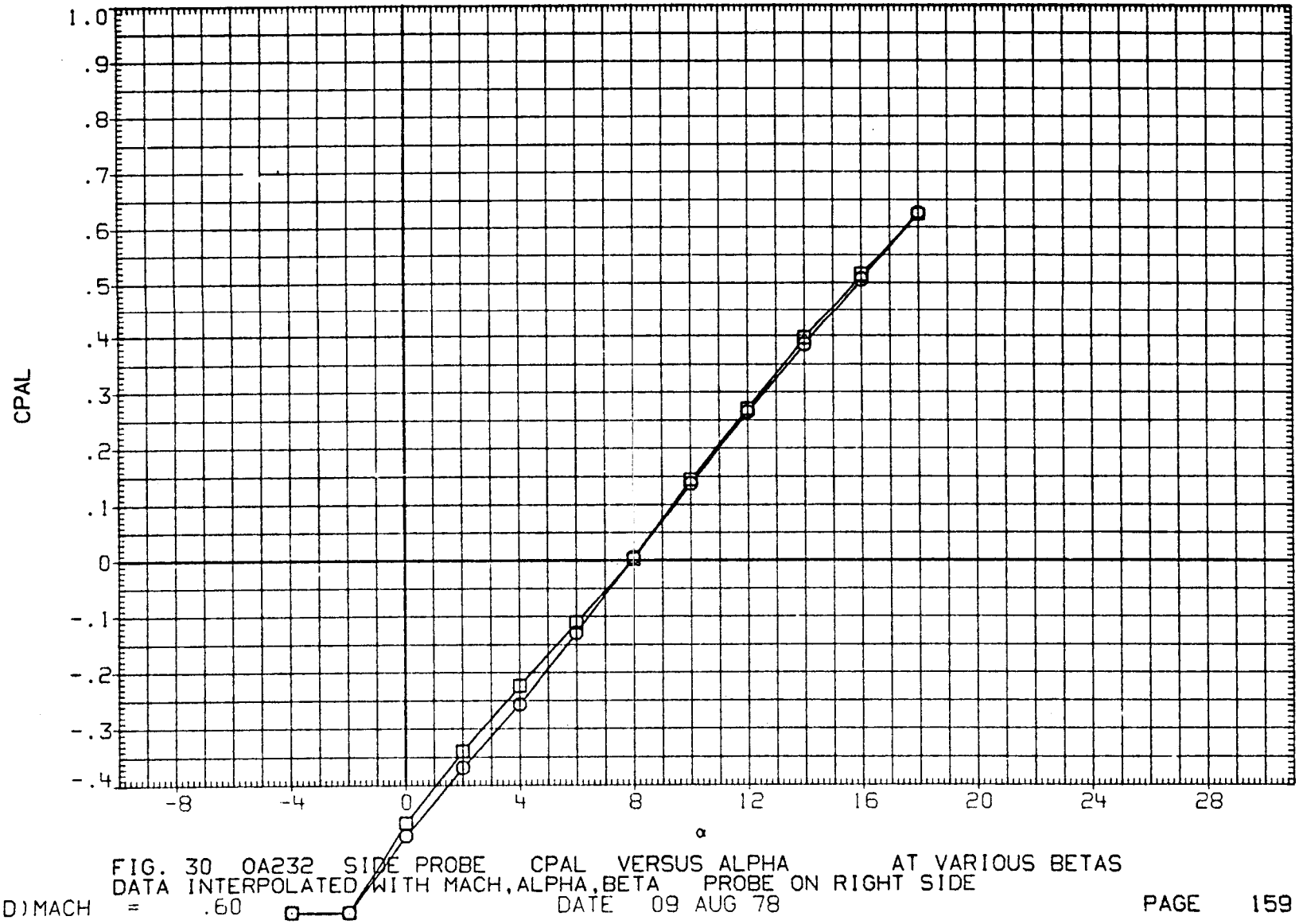


FIG. 30 0A232 SIDE PROBE CPAL VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE

(D)MACH = .60 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB12	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

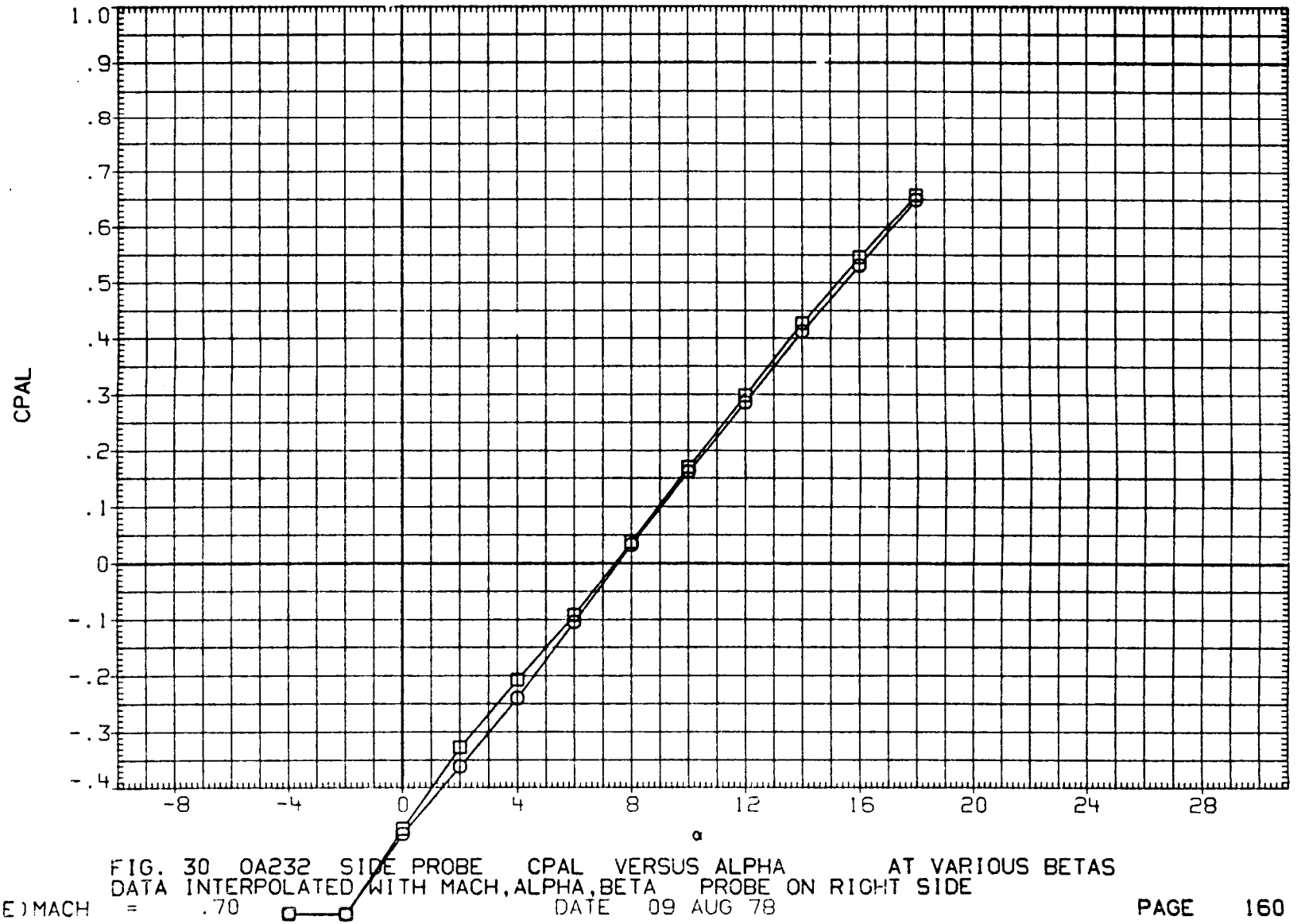


FIG. 30 0A232 SIDE PROBE CPAL VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE

(E)MACH = .70 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB12	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

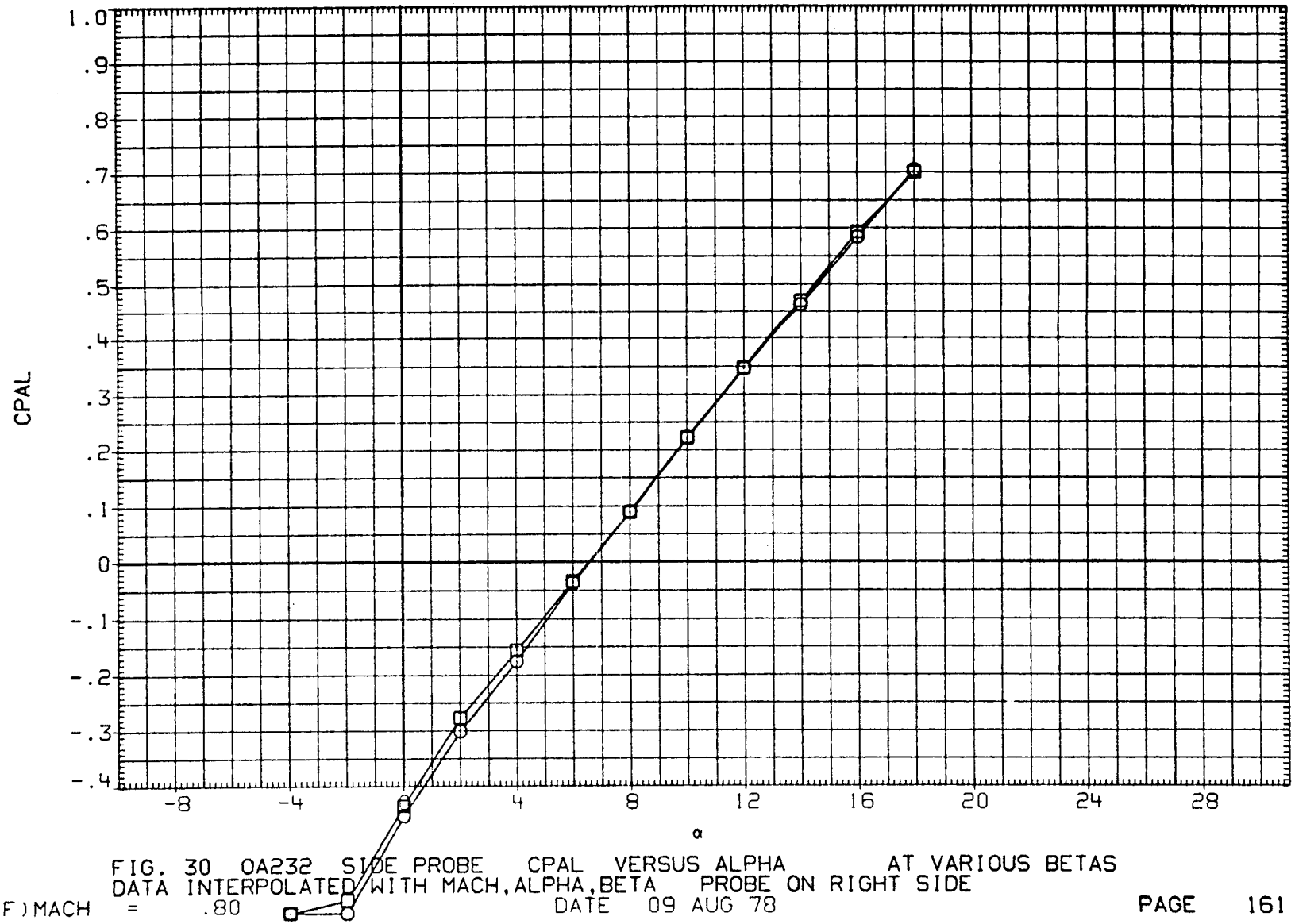


FIG. 30 0A232 SIDE PROBE CPAL VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE

(F)MACH = .80 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB12	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

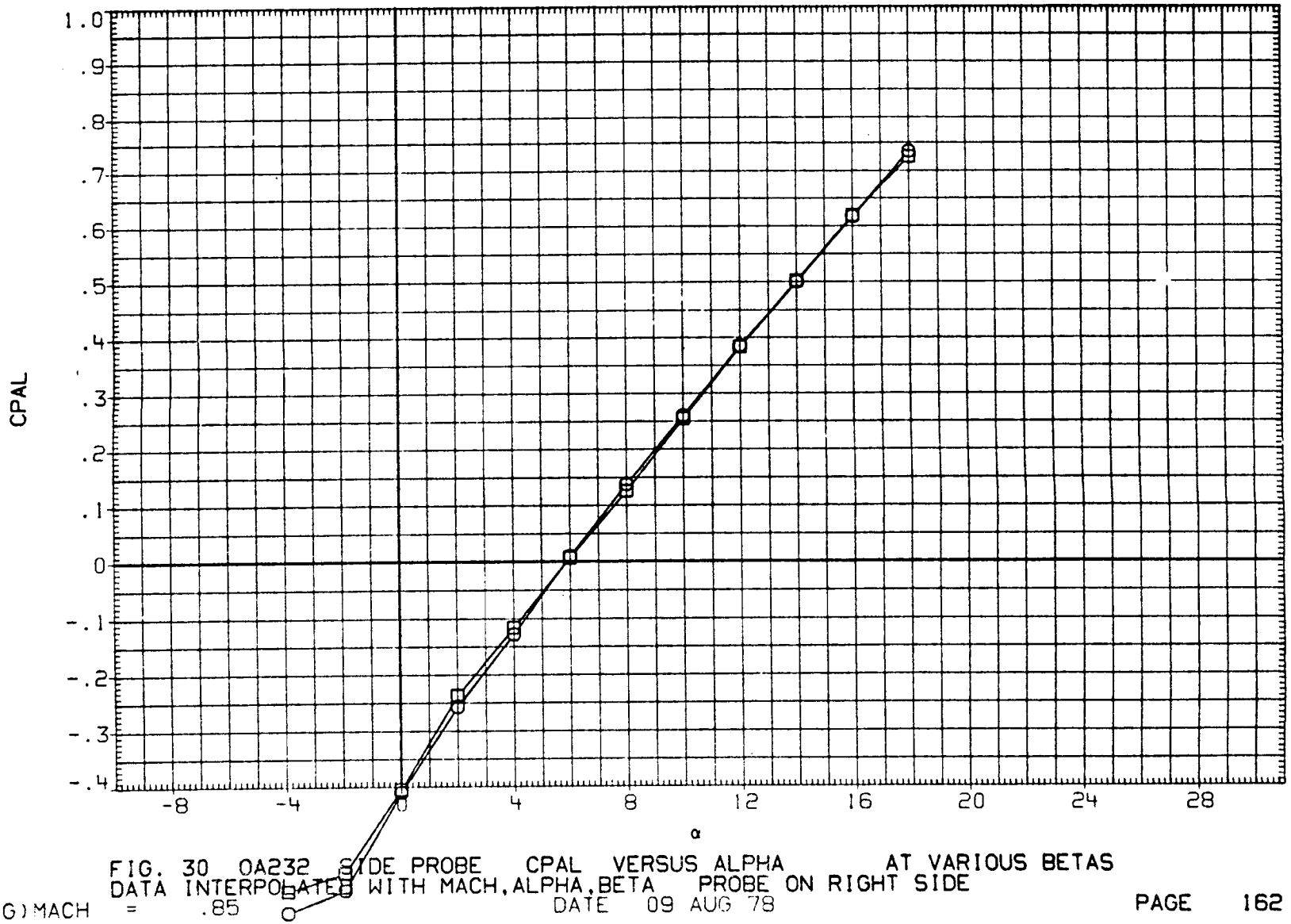


FIG. 30 0A232 SIDE PROBE CPAL VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON RIGHT SIDE

(G)MACH = .85 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB12	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

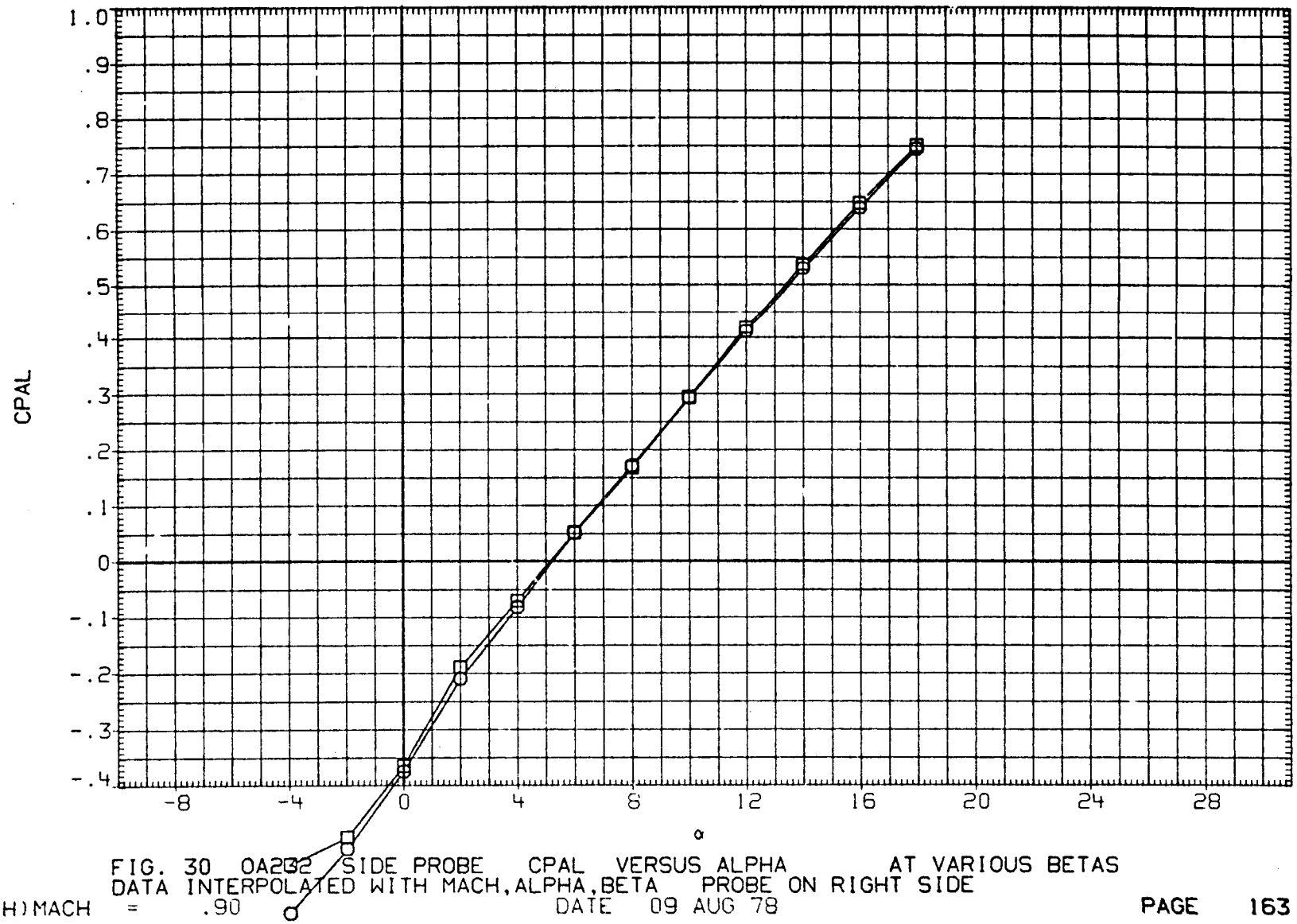


FIG. 30 0A232 SIDE PROBE CPAL VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE

(H)MACH = .90 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB12	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

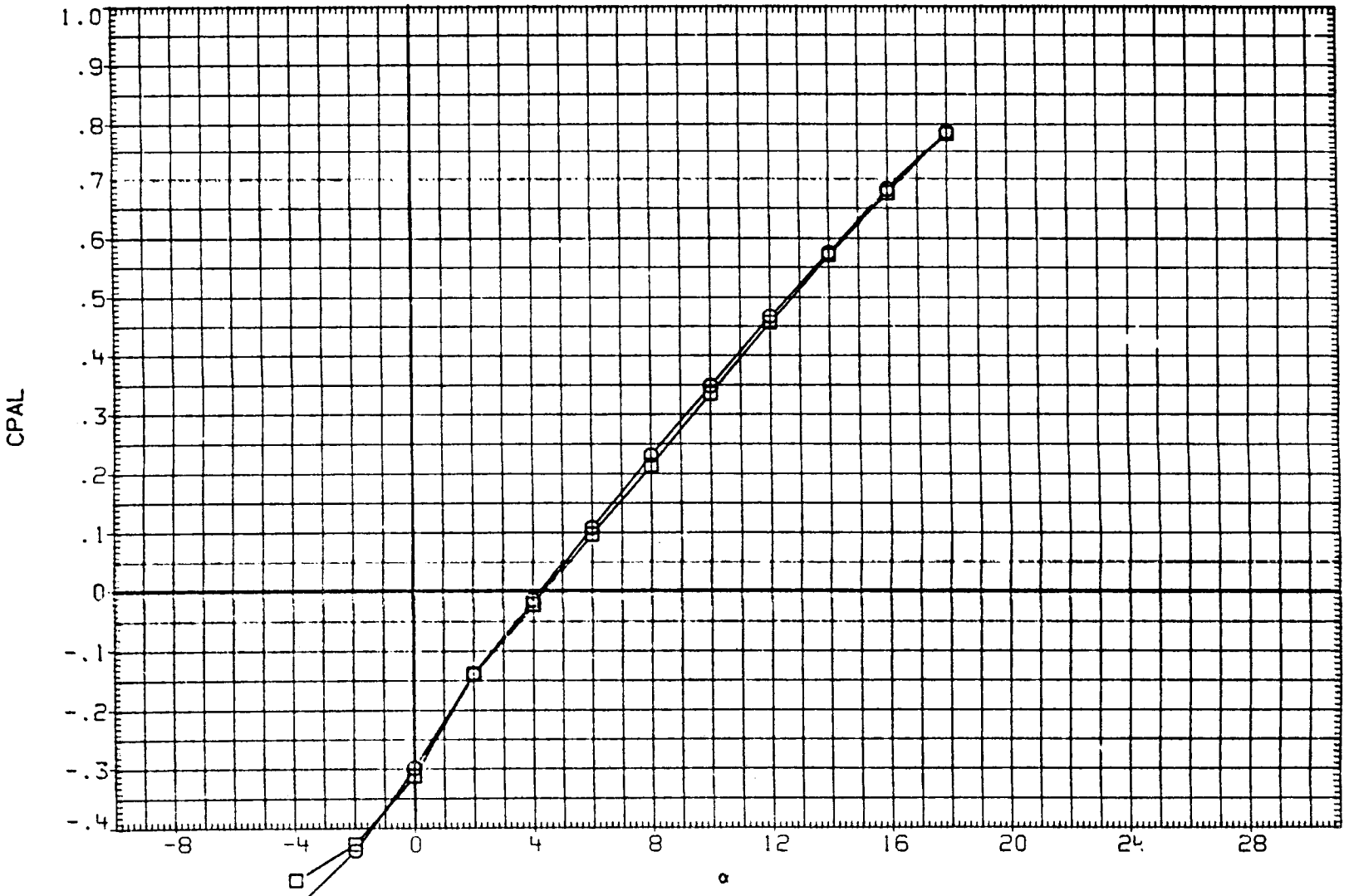


FIG. 30 0A232 SIDE PROBE CPAL VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE

(I)MACH = .95 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB12	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

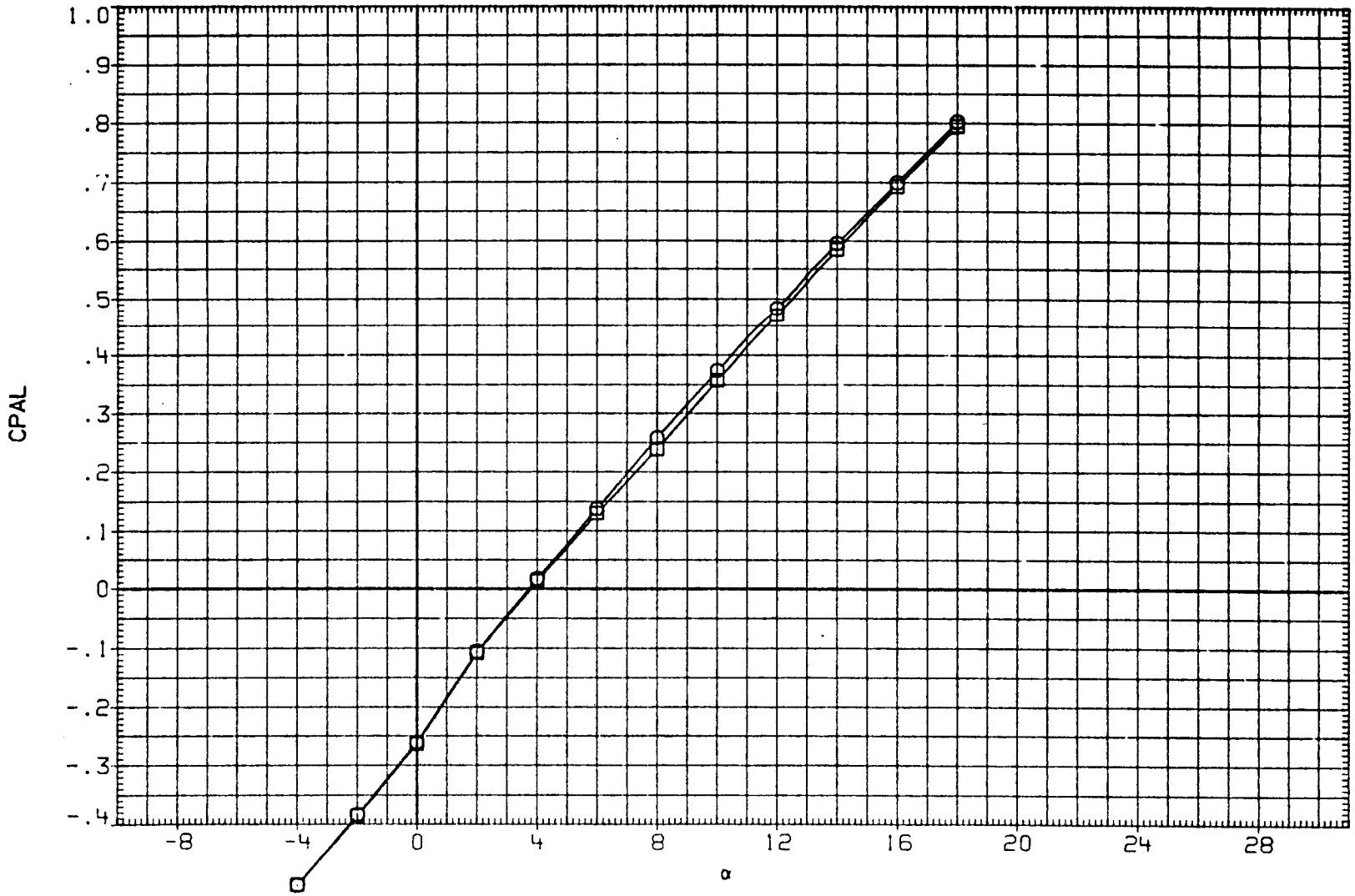


FIG. 30 0A232 SIDE PROBE CPAL VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE

(J)MACH = .98 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB12	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

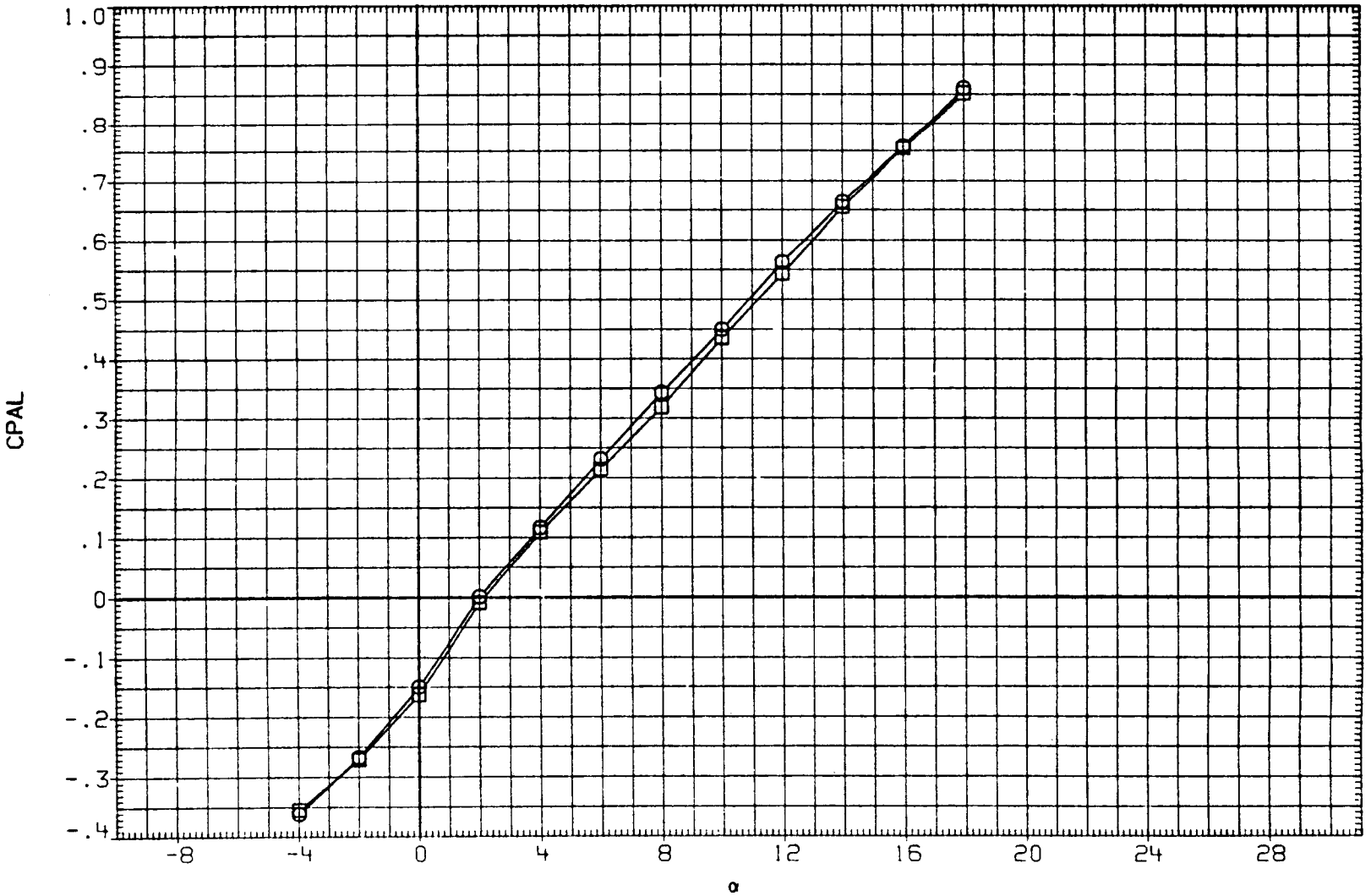


FIG. 30 0A232 SIDE PROBE CPAL VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE

(K)MACH = 1.05 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB12	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

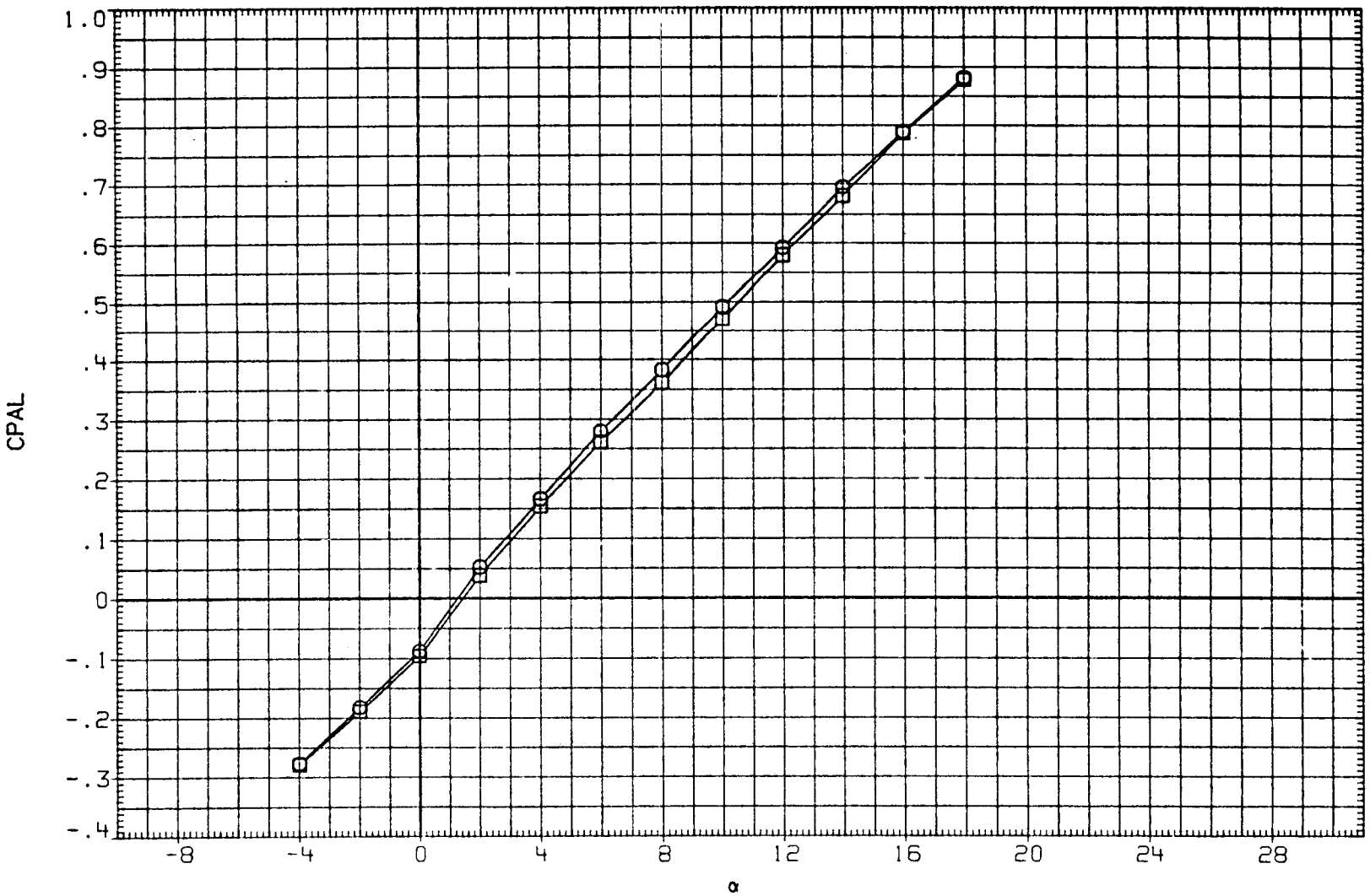


FIG. 30 0A232 SIDE PROBE CPAL VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE

(L)MACH = 1.10 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB12	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

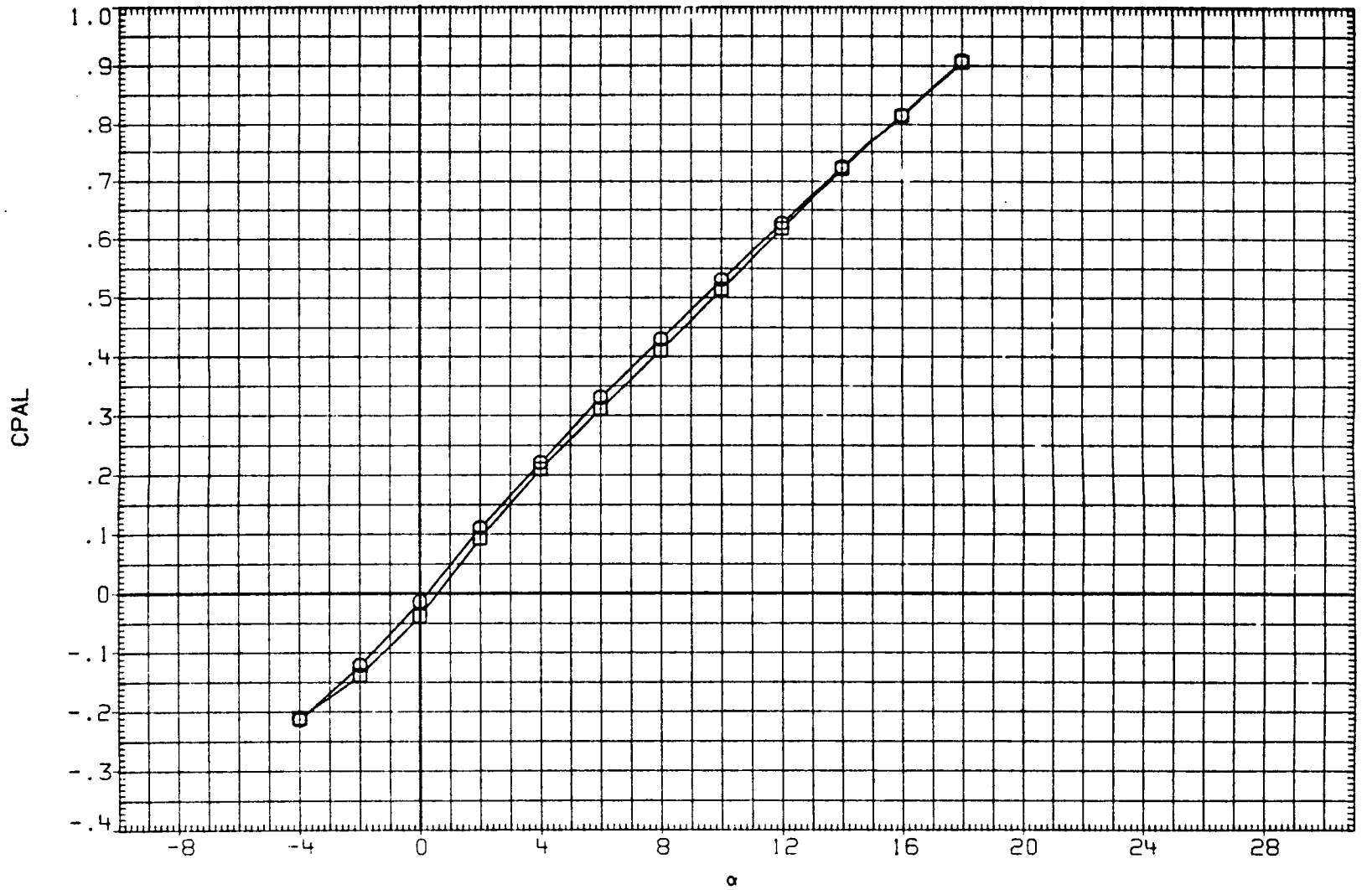


FIG. 30 0A232 SIDE PROBE CPAL VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE

(M)MACH = 1.15 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB12	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

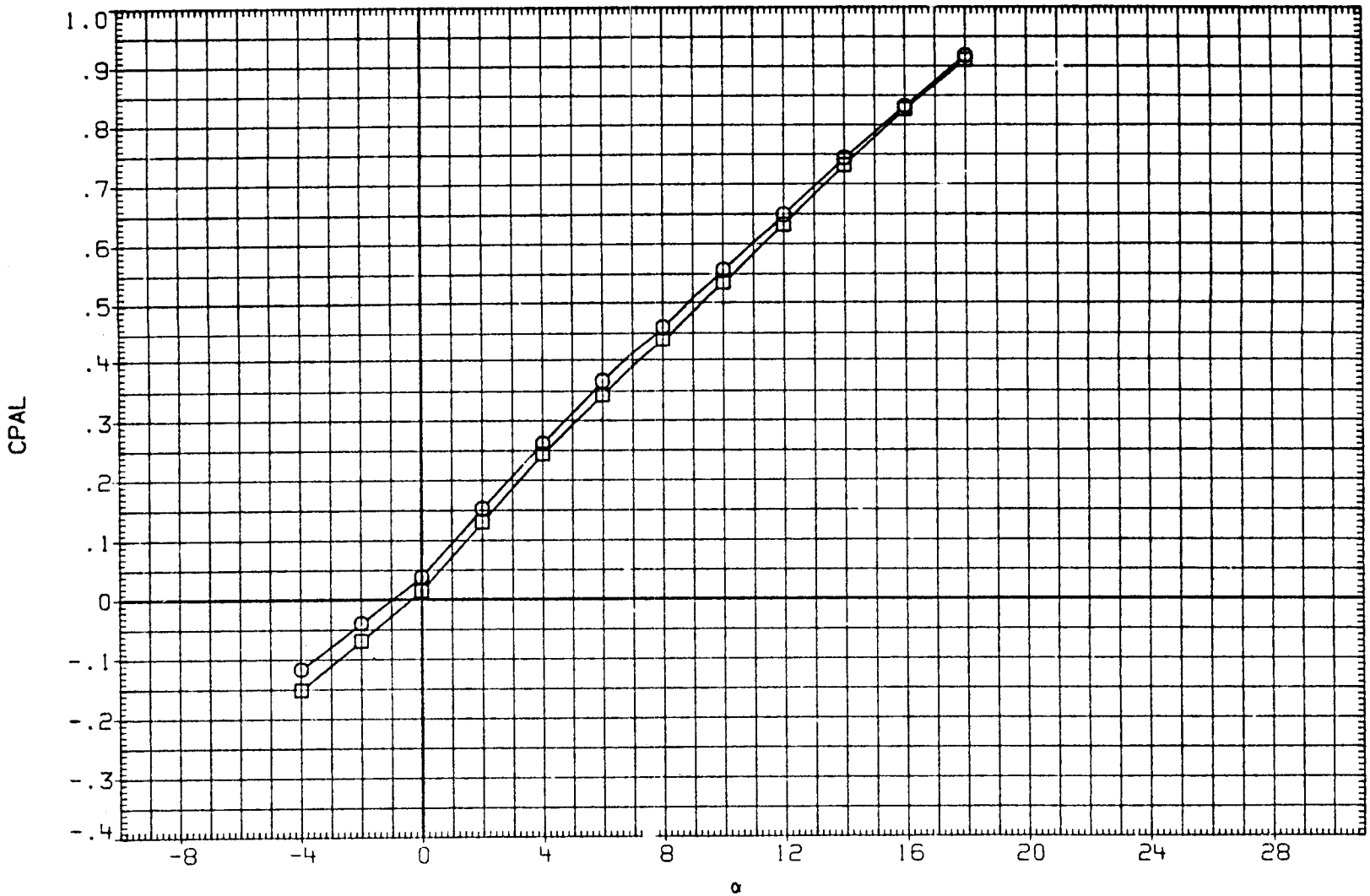


FIG. 30 0A232 SIDE PROBE CPAL VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE

(N)MACH = 1.20 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB12	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

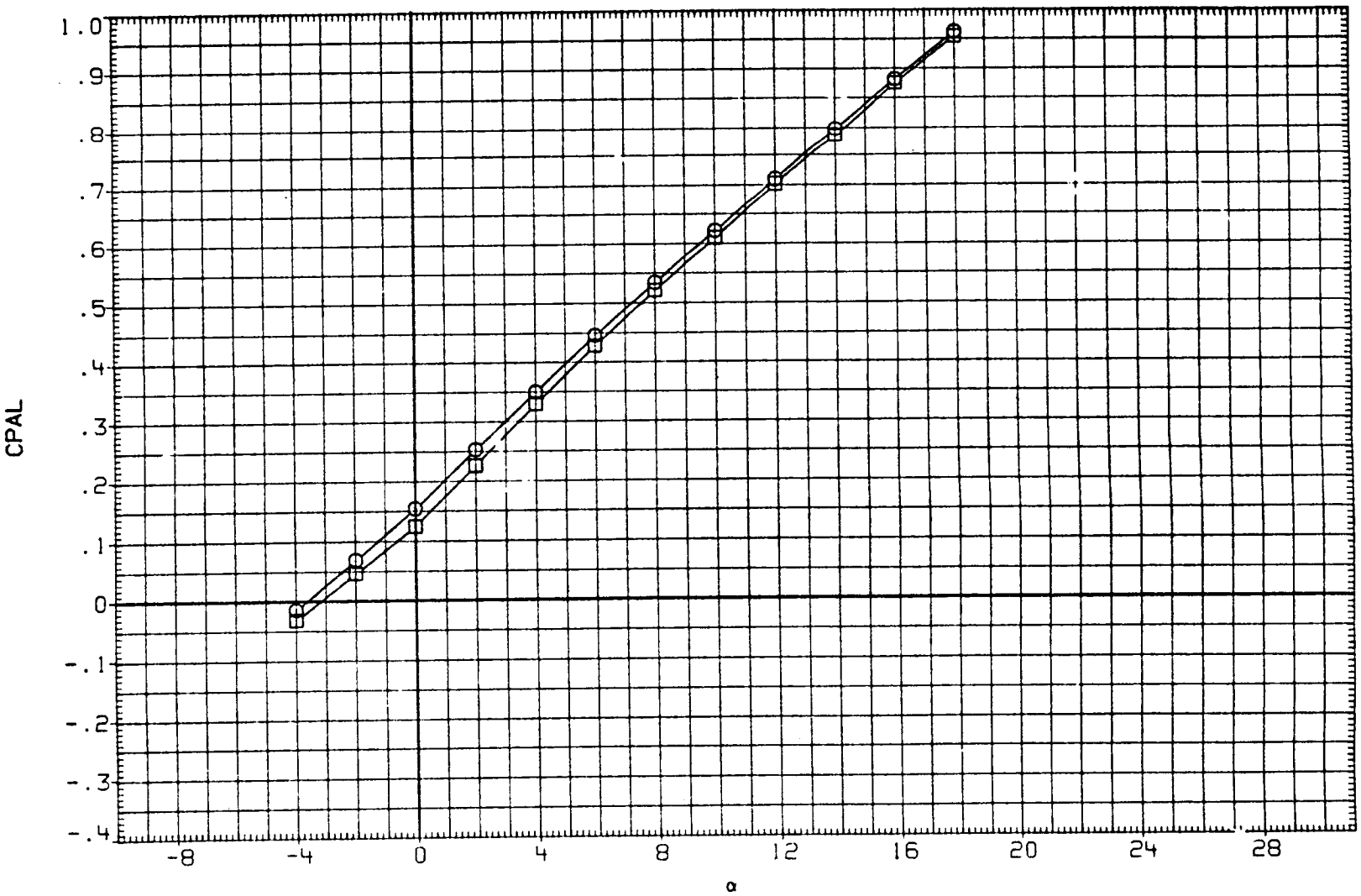


FIG. 30 0A232 SIDE PROBE CPAL VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON RIGHT SIDE

(O) MACH = 1.30 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB12	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

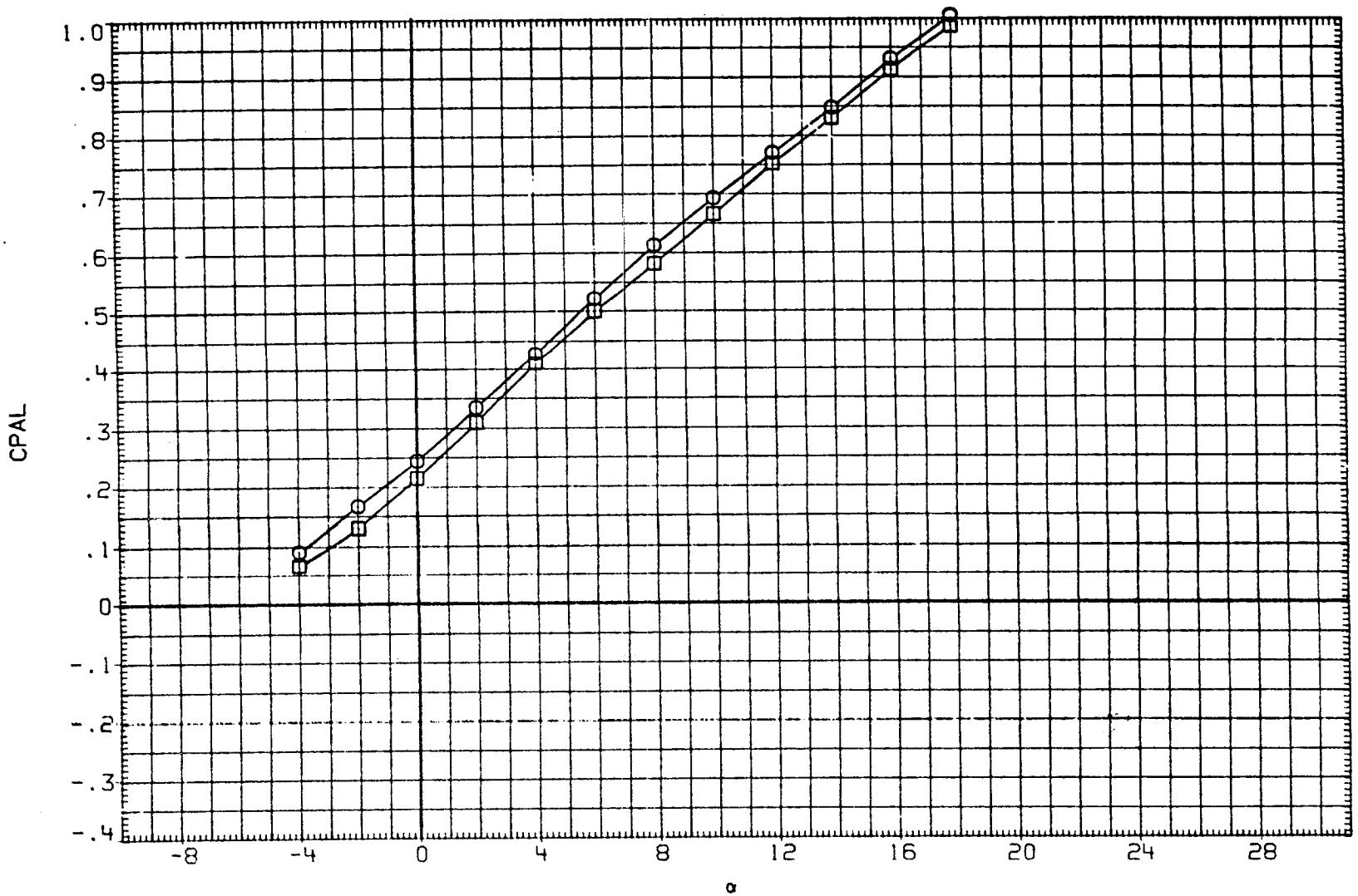


FIG. 30 0A232 SIDE PROBE CPAL VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE

(P)MACH = 1.40 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB12	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

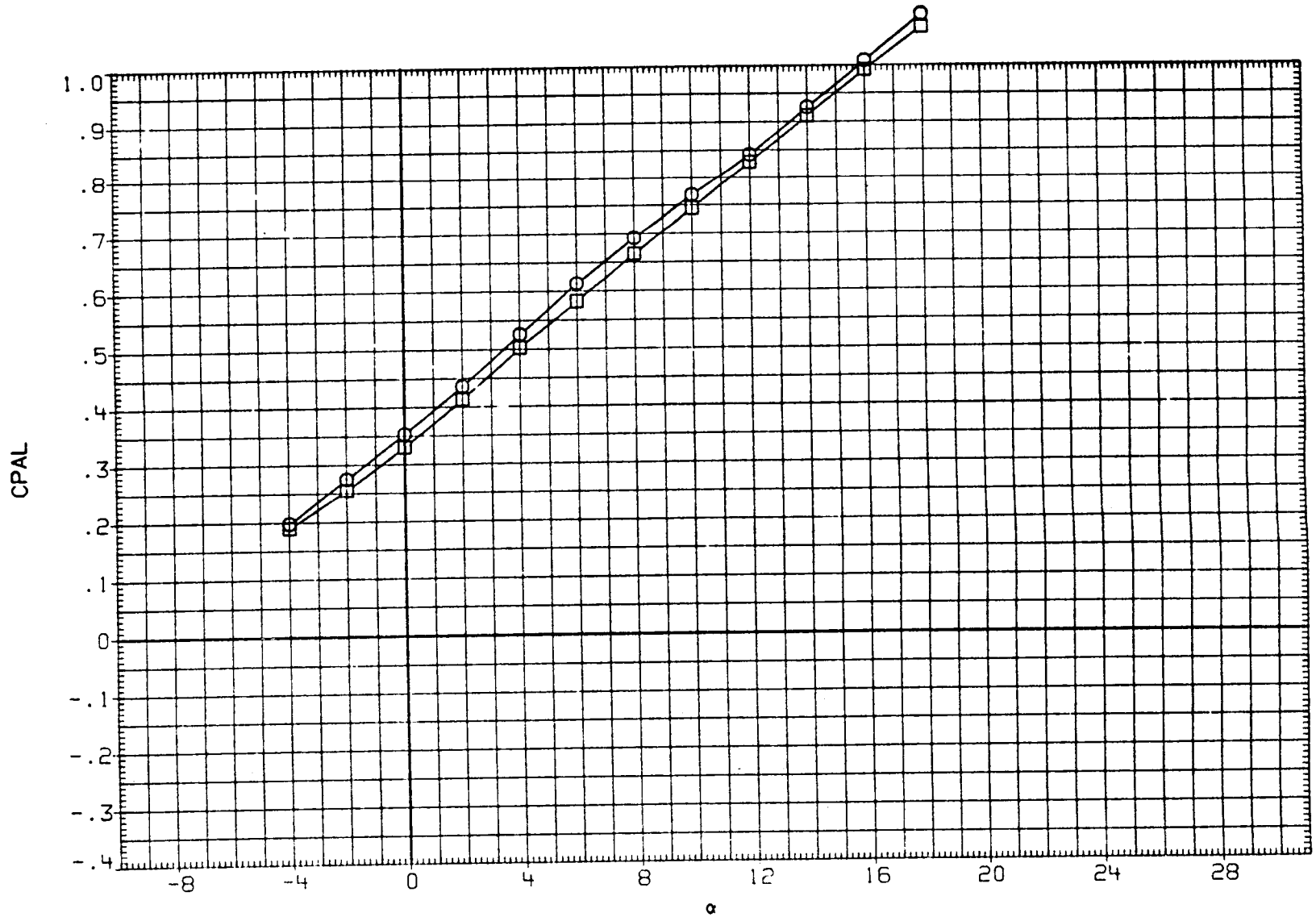


FIG. 30 0A232 SIDE PROBE CPAL VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON RIGHT SIDE

(C)MACH = 1.55 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVRB14	○	0A232	AEDC	16T	TF431	LA .2A RFN.1S	.000	.000
AVRB15	□	0A232	AEDC	16T	TF431	LA .2A RFN.1S	2.000	.000

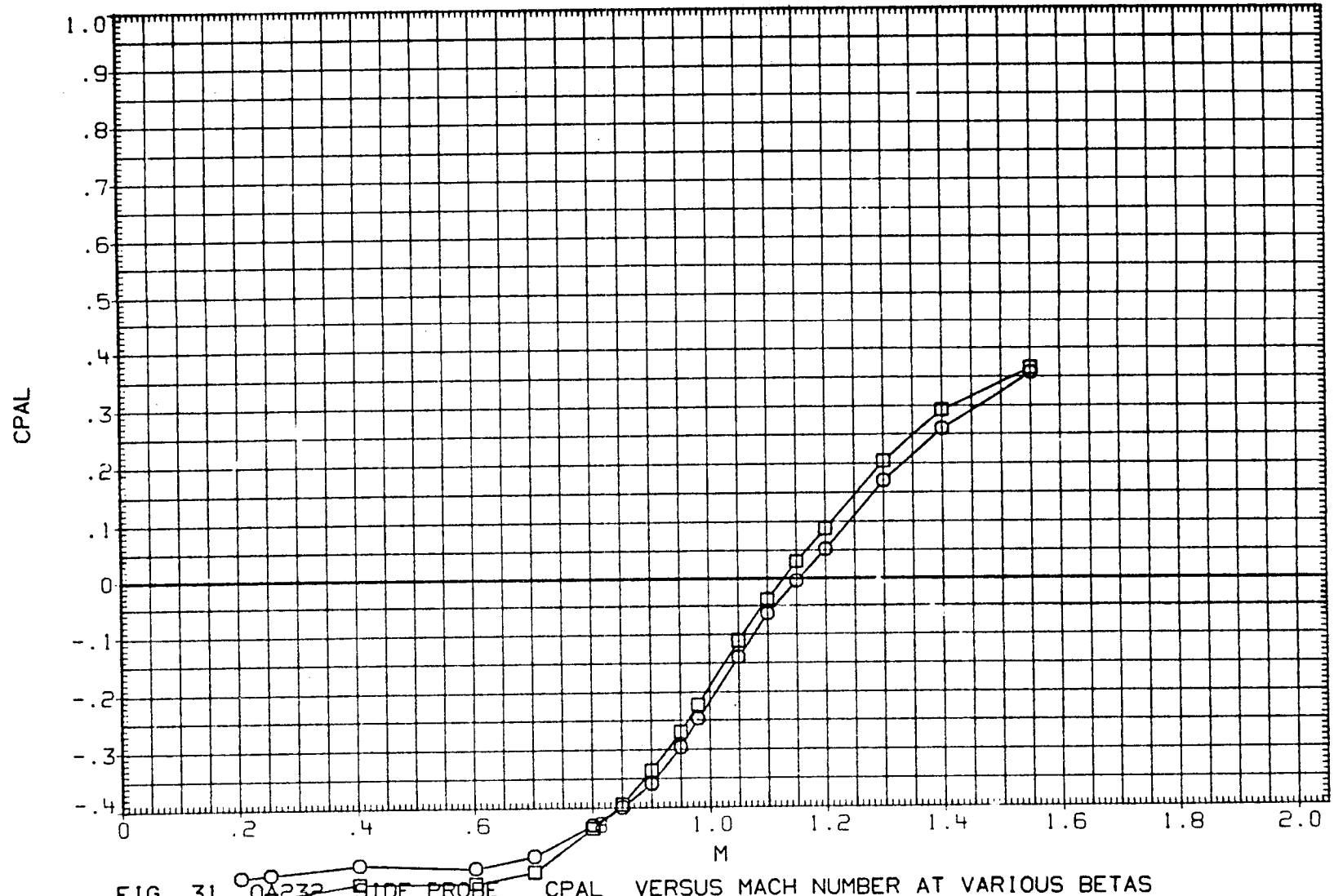


FIG. 31 0A232 SIDE PROBE CPAL VERSUS MACH NUMBER AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON LEFT SIDE

(A) ALPHA = .00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRB14	○	0A232	AEDC 16T TF431	LA .2A	RFN.1S	.000	.000
AVRB15	□	0A232	AEDC 16T TF431	LA .2A	RFN.1S	2.000	.000

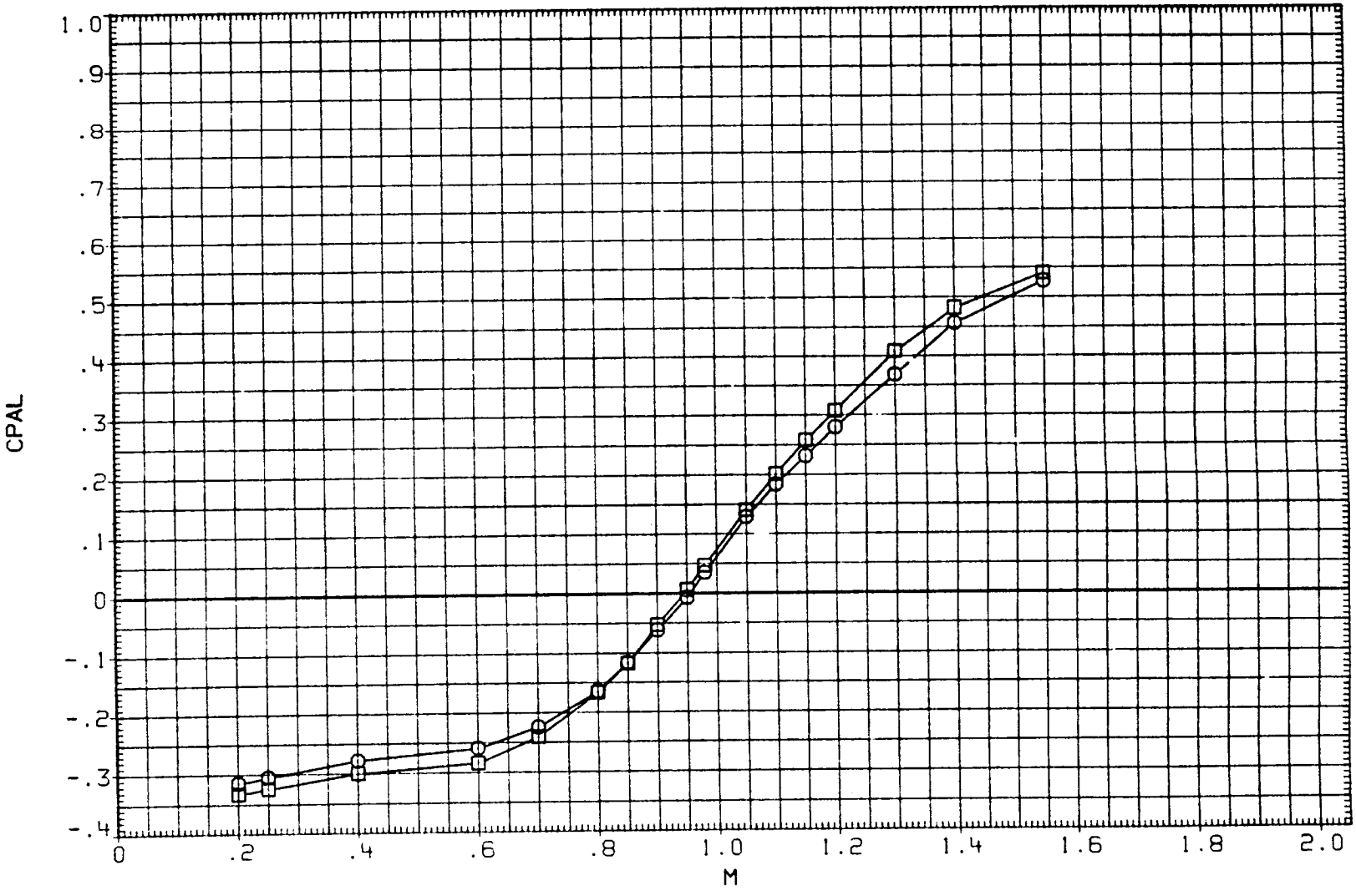


FIG. 31 0A232 SIDE PROBE CPAL VERSUS MACH NUMBER AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON LEFT SIDE

(B) ALPHA = 4.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVRB14	○	0A232	AEDC 16T TF431	LA .2A	RFN.1S		.000	.000
AVRB15	□	0A232	AEDC 16T TF431	LA .2A	RFN.1S		2.000	.000

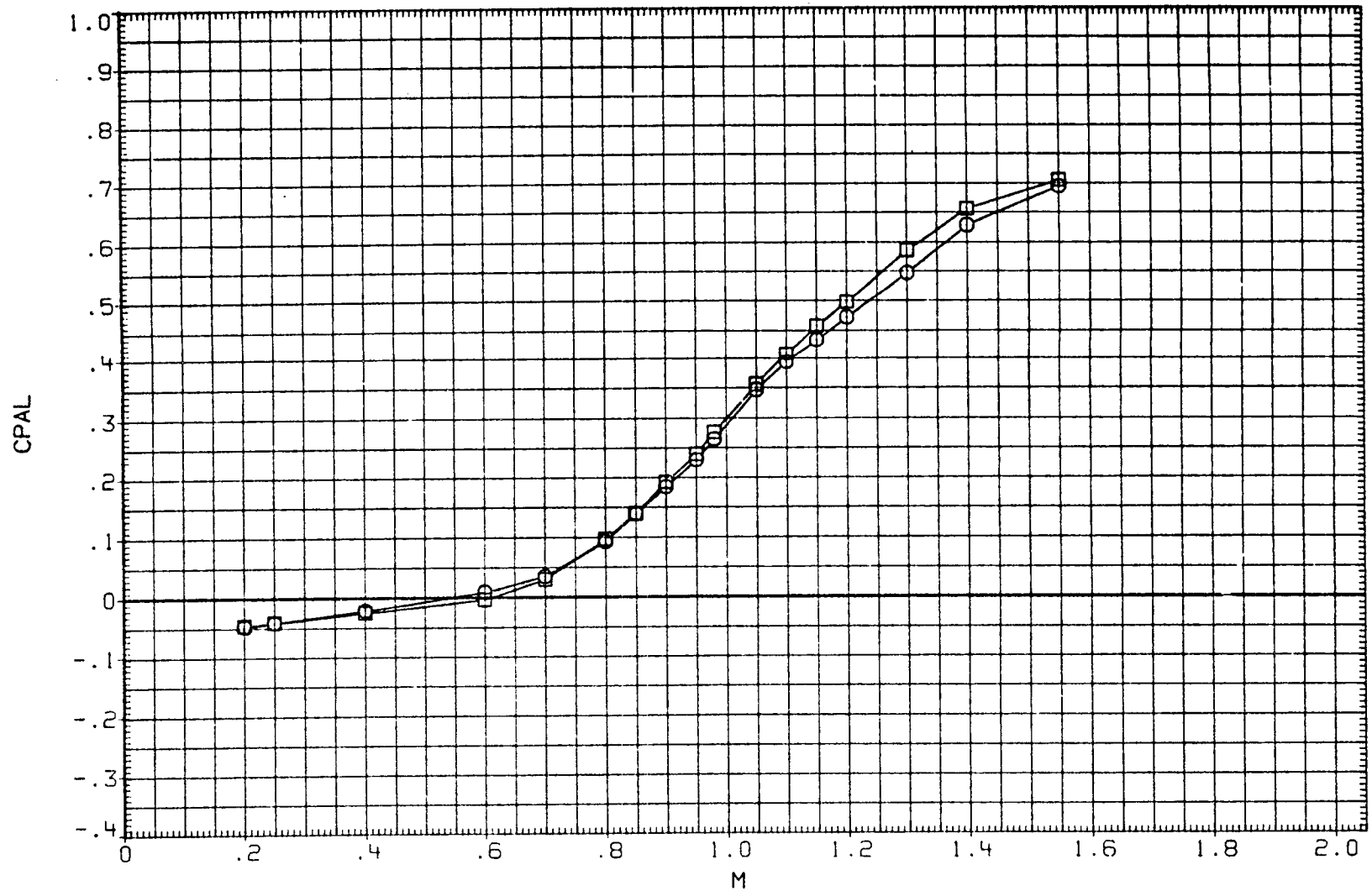


FIG. 31 0A232 SIDE PROBE CPAL VERSUS MACH NUMBER AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON LEFT SIDE

(C)ALPHA = 8.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRB14	○	0A232	AEDC 16T TF431	LA .2A	RFN.1S	.000	.000
AVRB15	□	0A232	AEDC 16T TF431	LA .2A	RFN.1S	2.000	.000

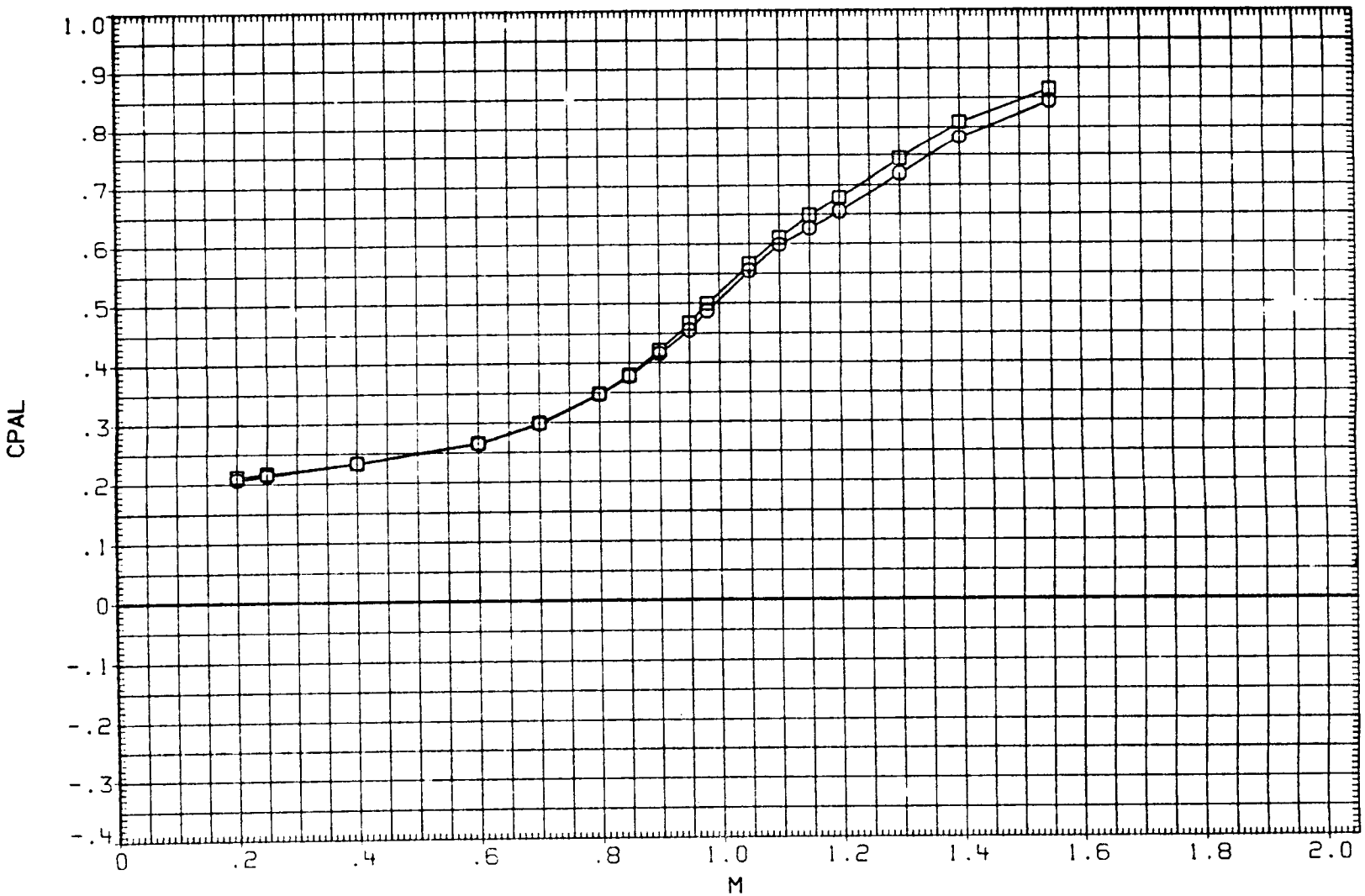


FIG. 31 0A232 SIDE PROBE CPAL VERSUS MACH NUMBER AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON LEFT SIDE

(D) ALPHA = 12.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVR814	○	0A232	AEDC	16T	TF431	LA .2A RFN.1S	.000	.000
AVR815	□	0A232	AEDC	16T	TF431	LA .2A RFN.1S	2.000	.000

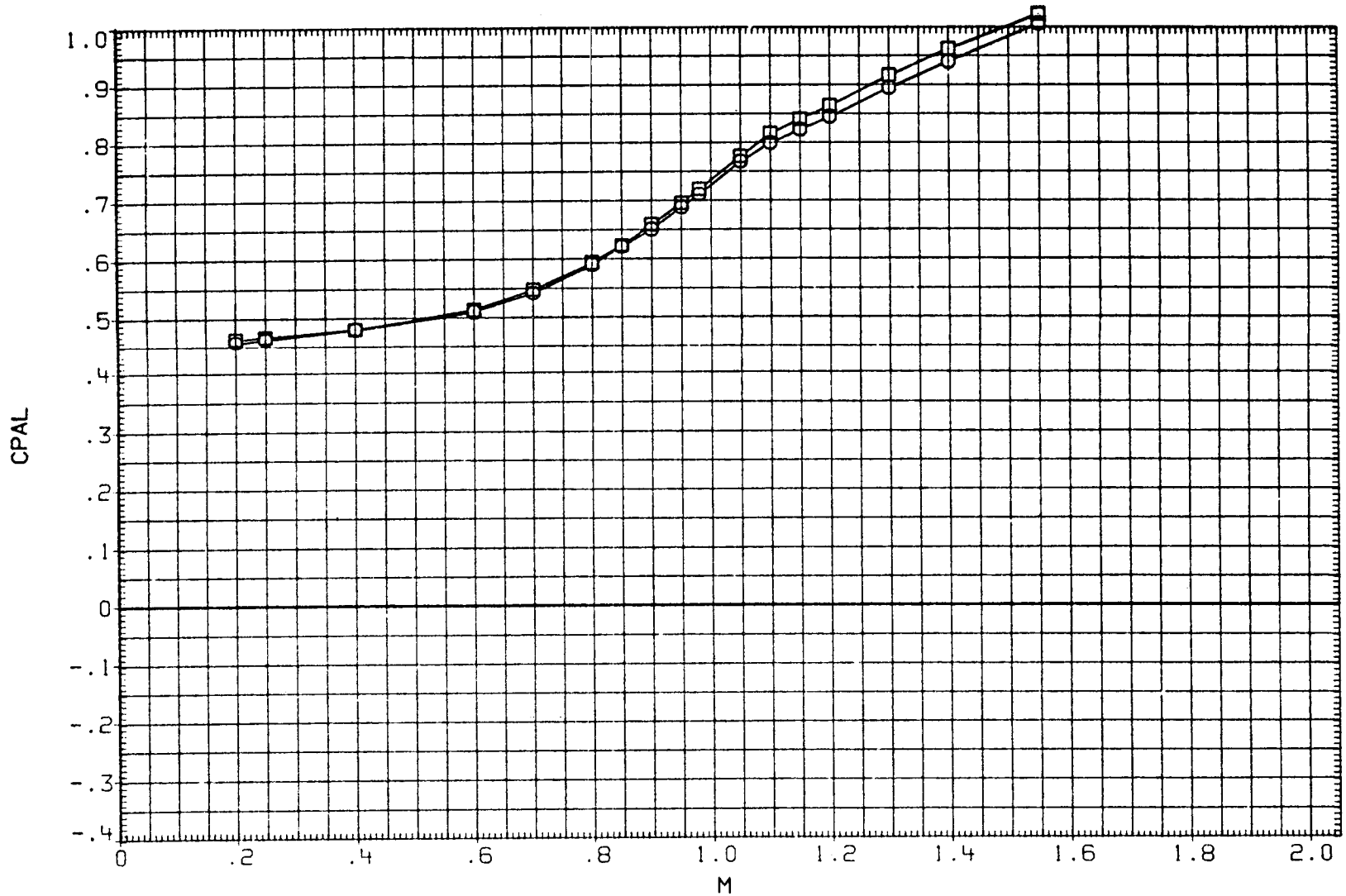


FIG. 31 0A232 SIDE PROBE CPAL VERSUS MACH NUMBER AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON LEFT SIDE

(E)ALPHA = 16.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVR814	○	0A232	AEDC	16T	TF431	LA .2/. RFN.1S	.000	.000
AVR815	□	0A232	AEDC	16T	TF431	LA .2A RFN.1S	2.000	.000

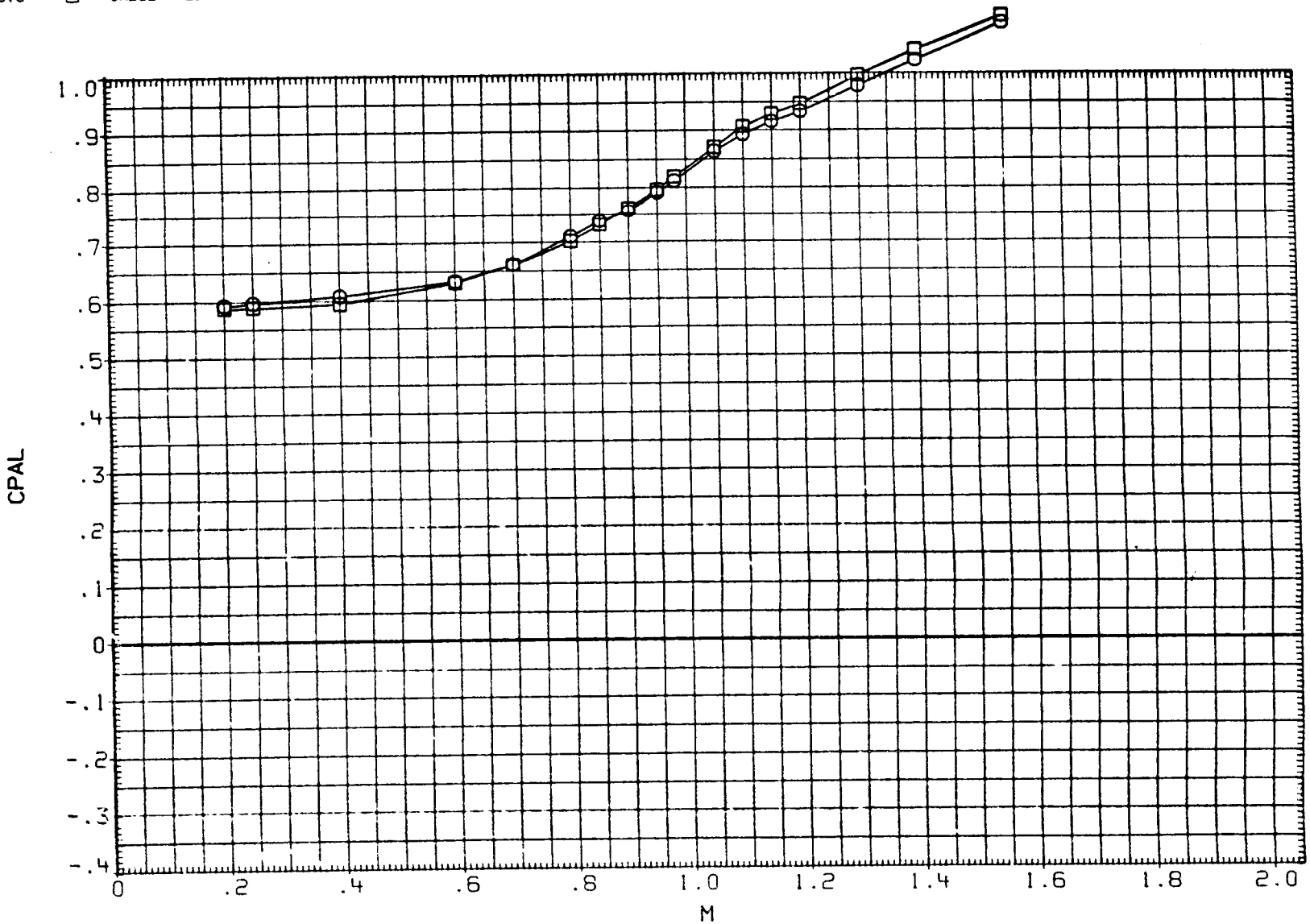


FIG. 31 0A232 SIDE PROBE CPAL VERSUS MACH NUMBER AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON LEFT SIDE

(F) ALPHA = 18.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB12	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

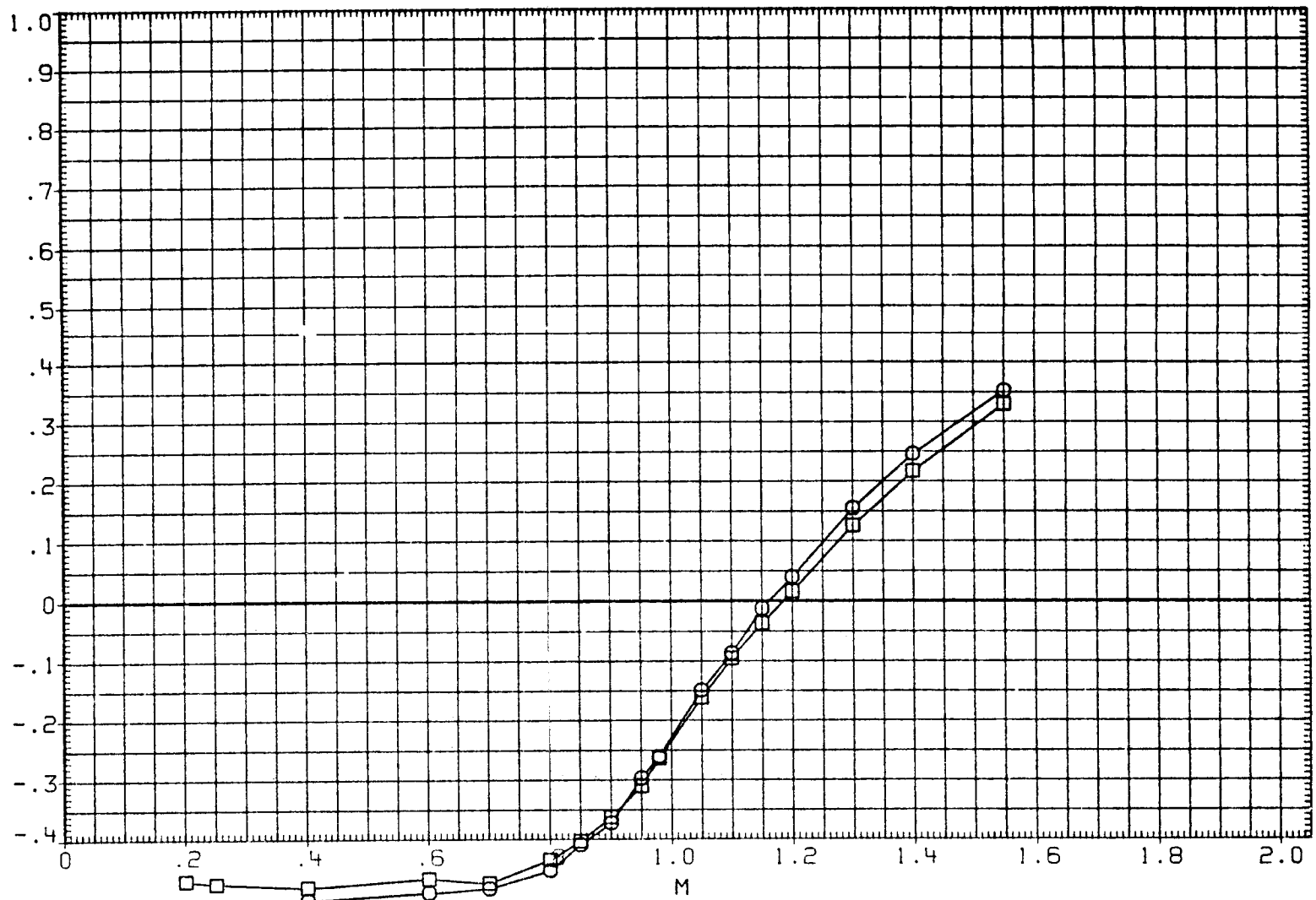


FIG. 32 0A232 SIDE PROBE CPAL VERSUS MACH NUMBER AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE

(A)ALPHA = .00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB12	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

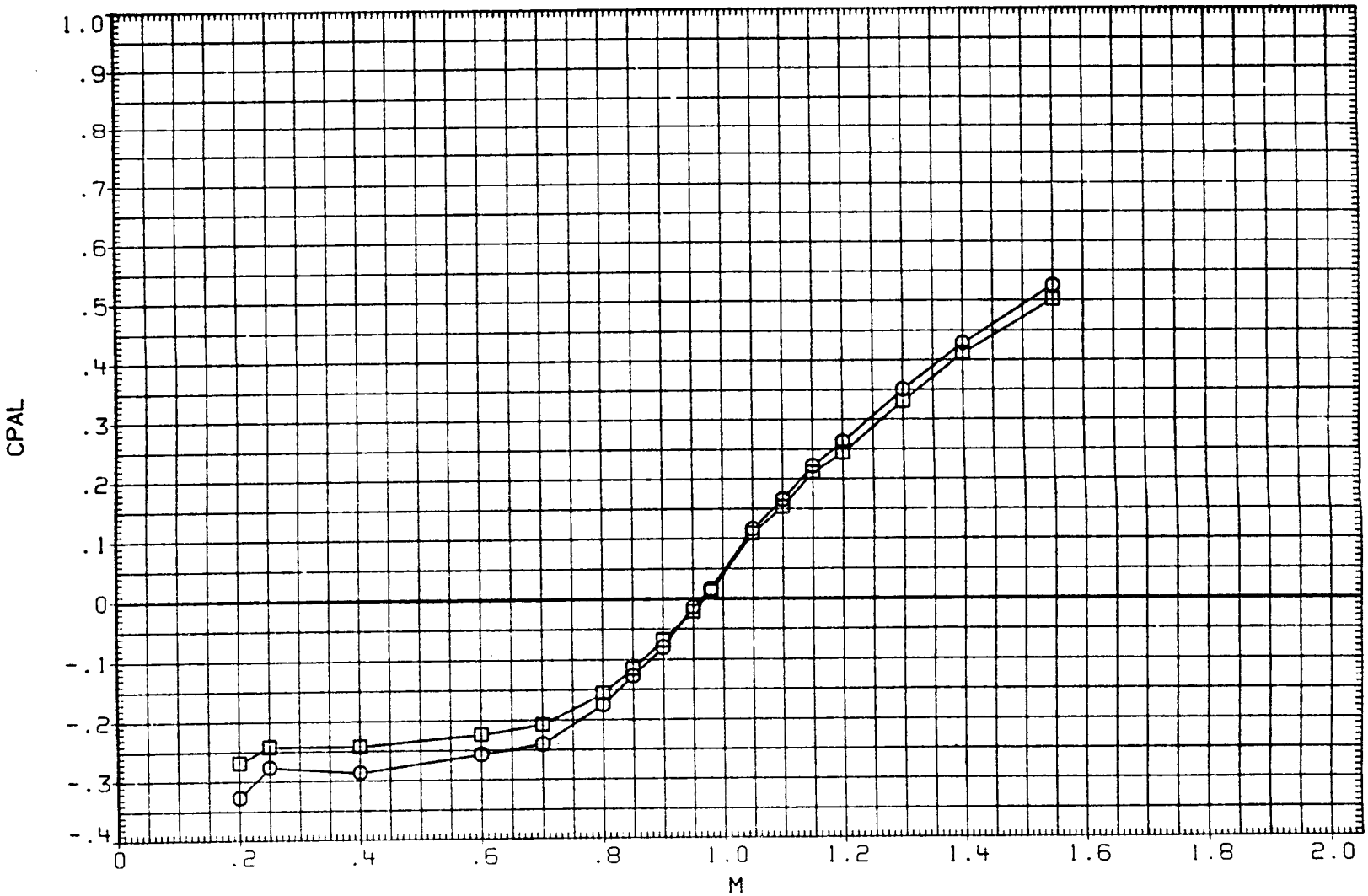


FIG. 32 0A232 SIDE PROBE CPAL VERSUS MACH NUMBER AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE

(B)ALPHA = 4.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB12	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

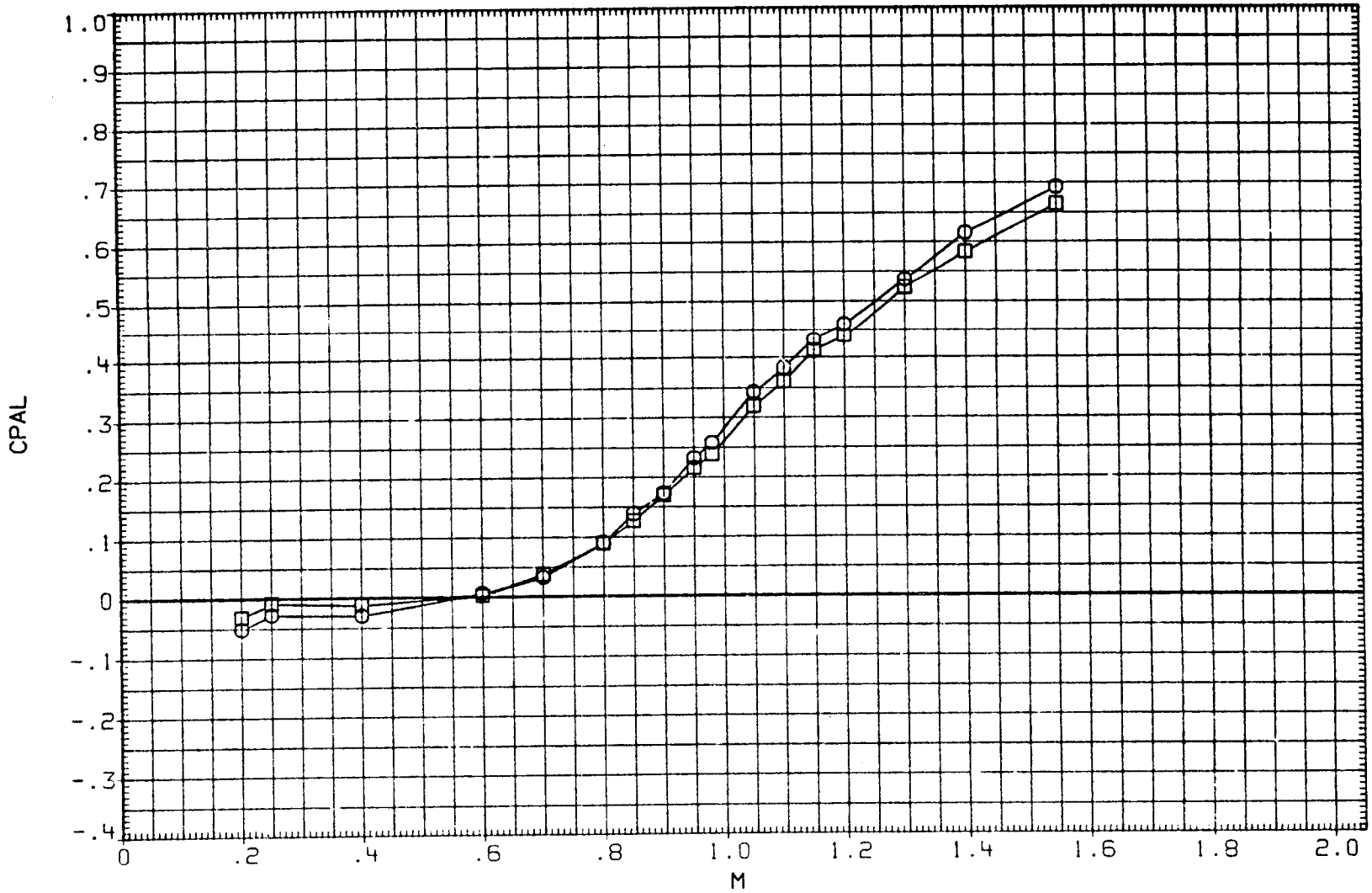


FIG. 32 0A232 SIDE PROBE CPAL VERSUS MACH NUMBER AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE

(C)ALPHA = 8.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB12	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

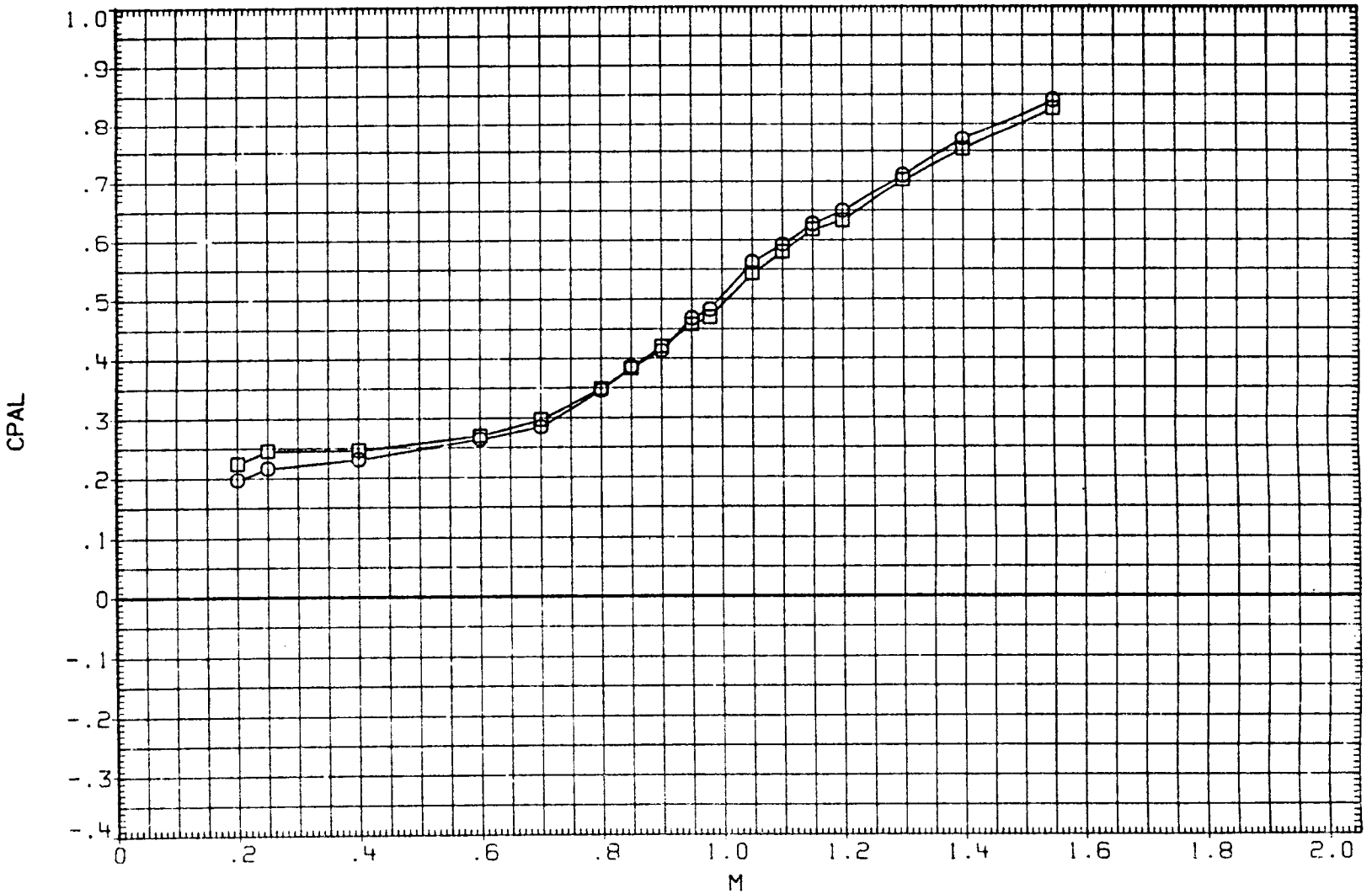


FIG. 32 0A232 SIDE PROBE CPAL VERSUS MACH NUMBER AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE

(D)ALPHA = 12.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB12	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

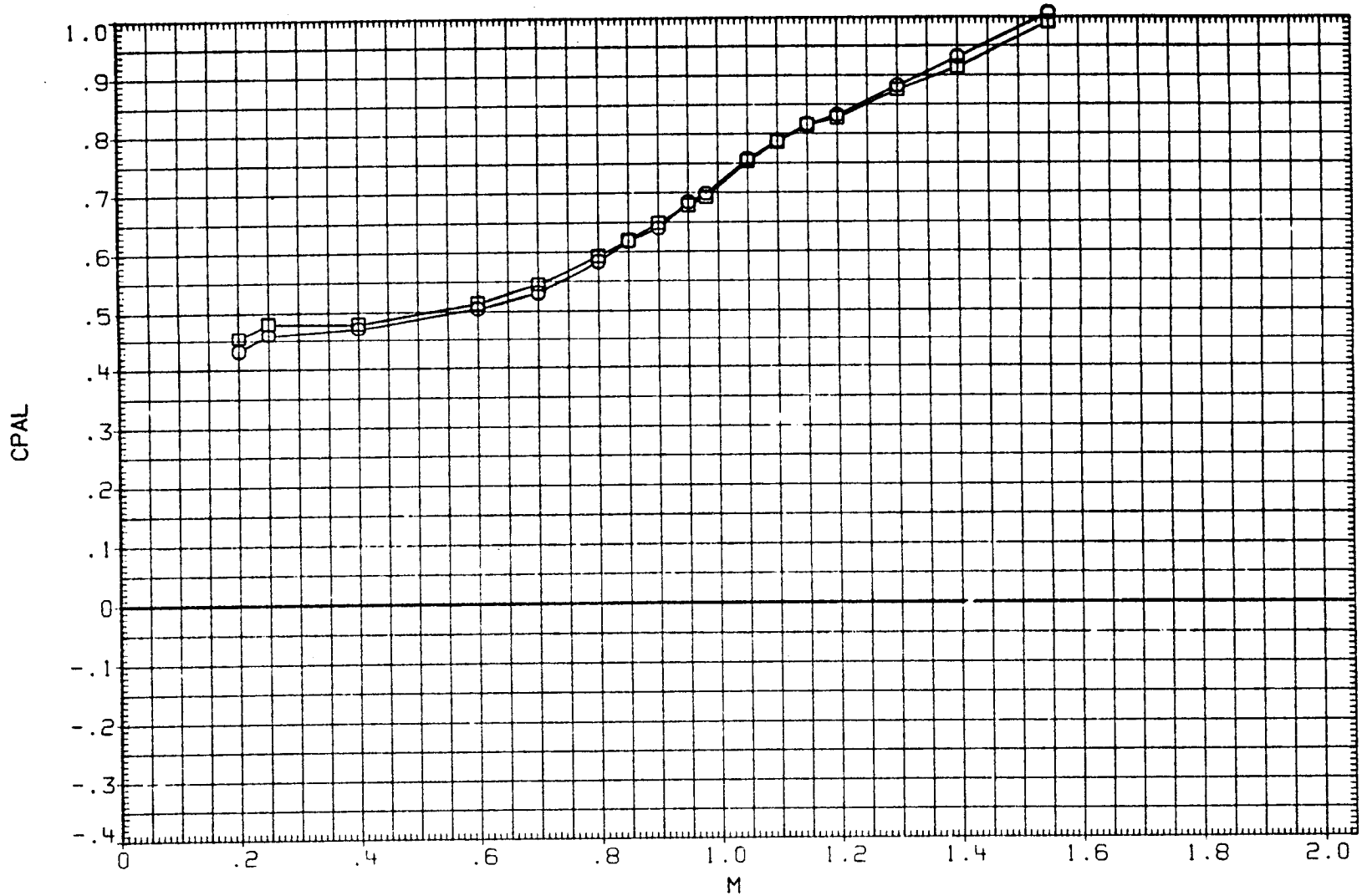


FIG. 32 0A232 SIDE PROBE CPAL VERSUS MACH NUMBER AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE

(E)ALPHA = 16.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB12	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

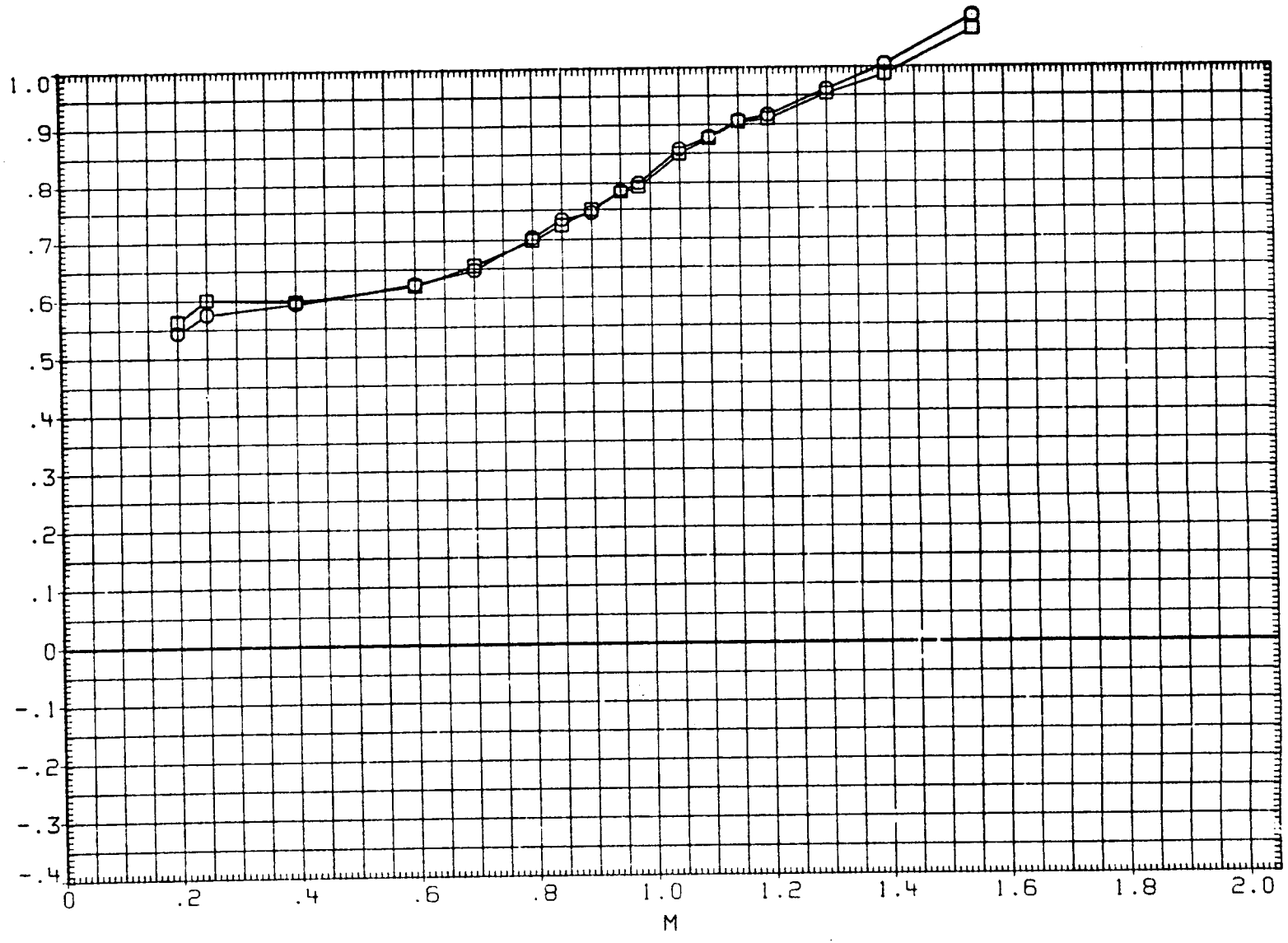


FIG. 32 0A232 SIDE PROBE CPAL VERSUS MACH NUMBER AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON RIGHT SIDE

(F) ALPHA = 18.00 DATE 09 AUG 78

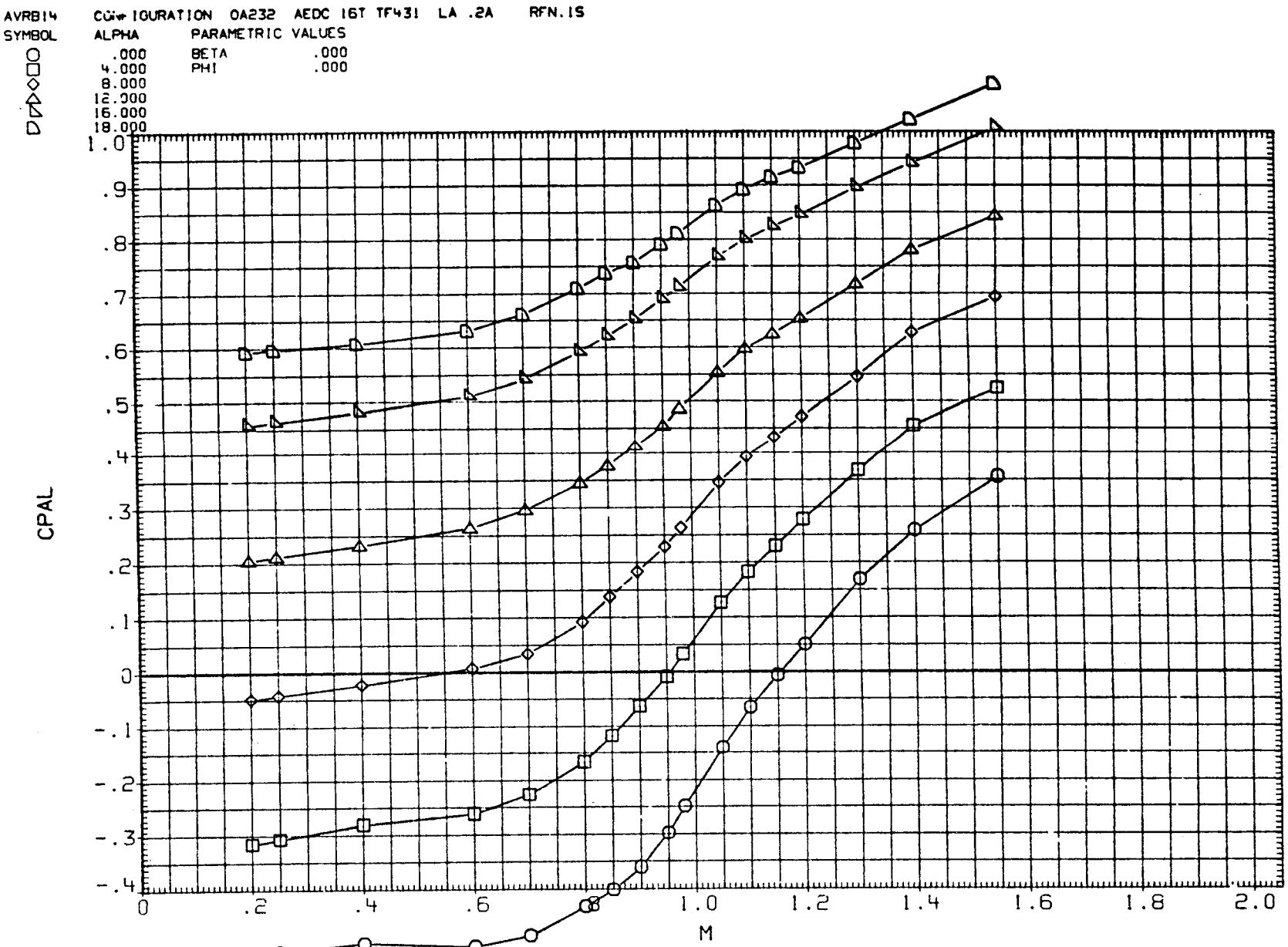


FIG. 33 0A232 SIDE PROBE CPAL VERSUS MACH NUMBER AT VARIOUS ALPHAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON LEFT SIDE
DATE 09 AUG 78

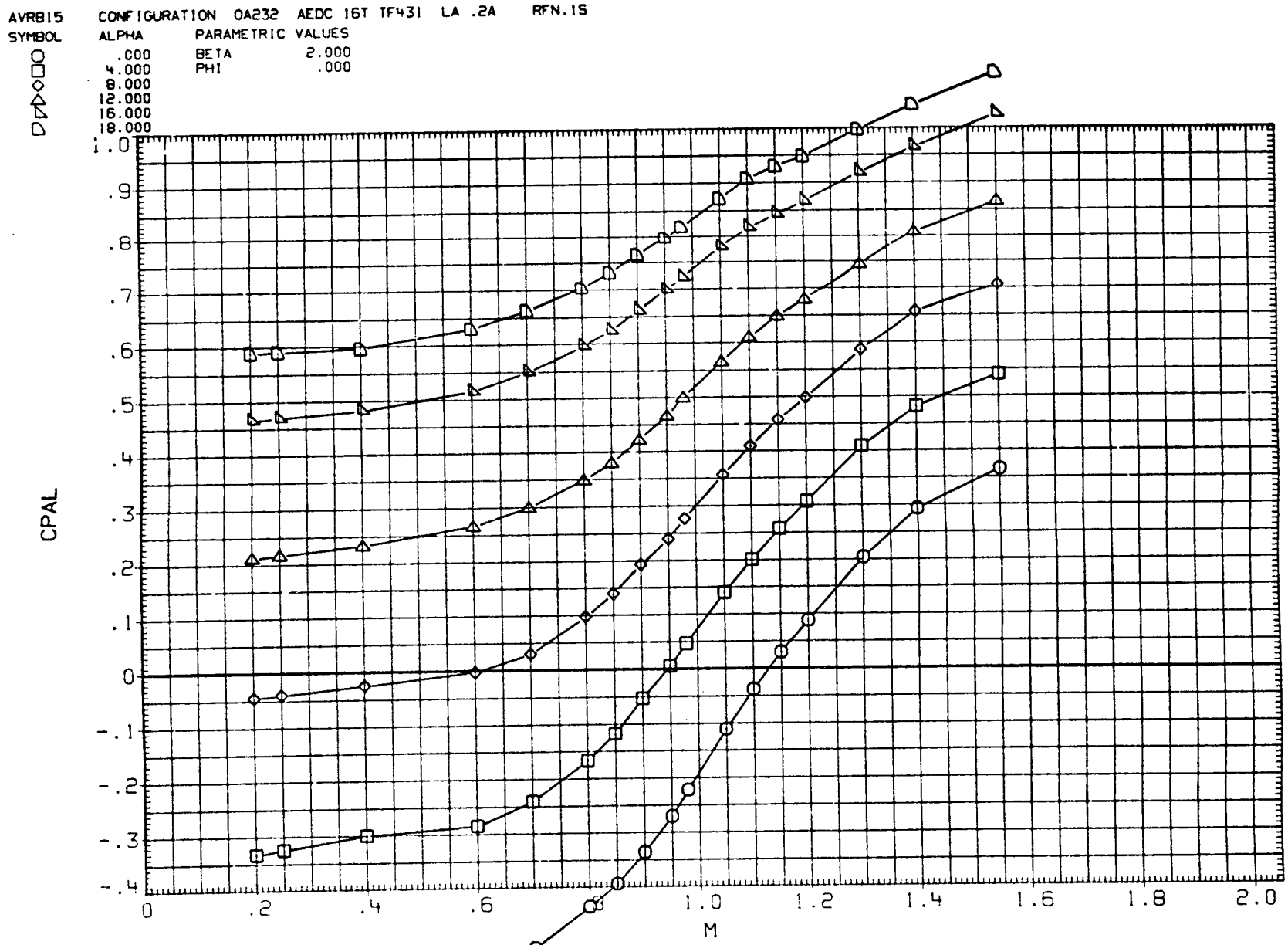


FIG. 33 0A232 SIDE PROBE CPAL VERSUS MACH NUMBER AT VARIOUS ALPHAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON LEFT SIDE

DATE 09 AUG 78

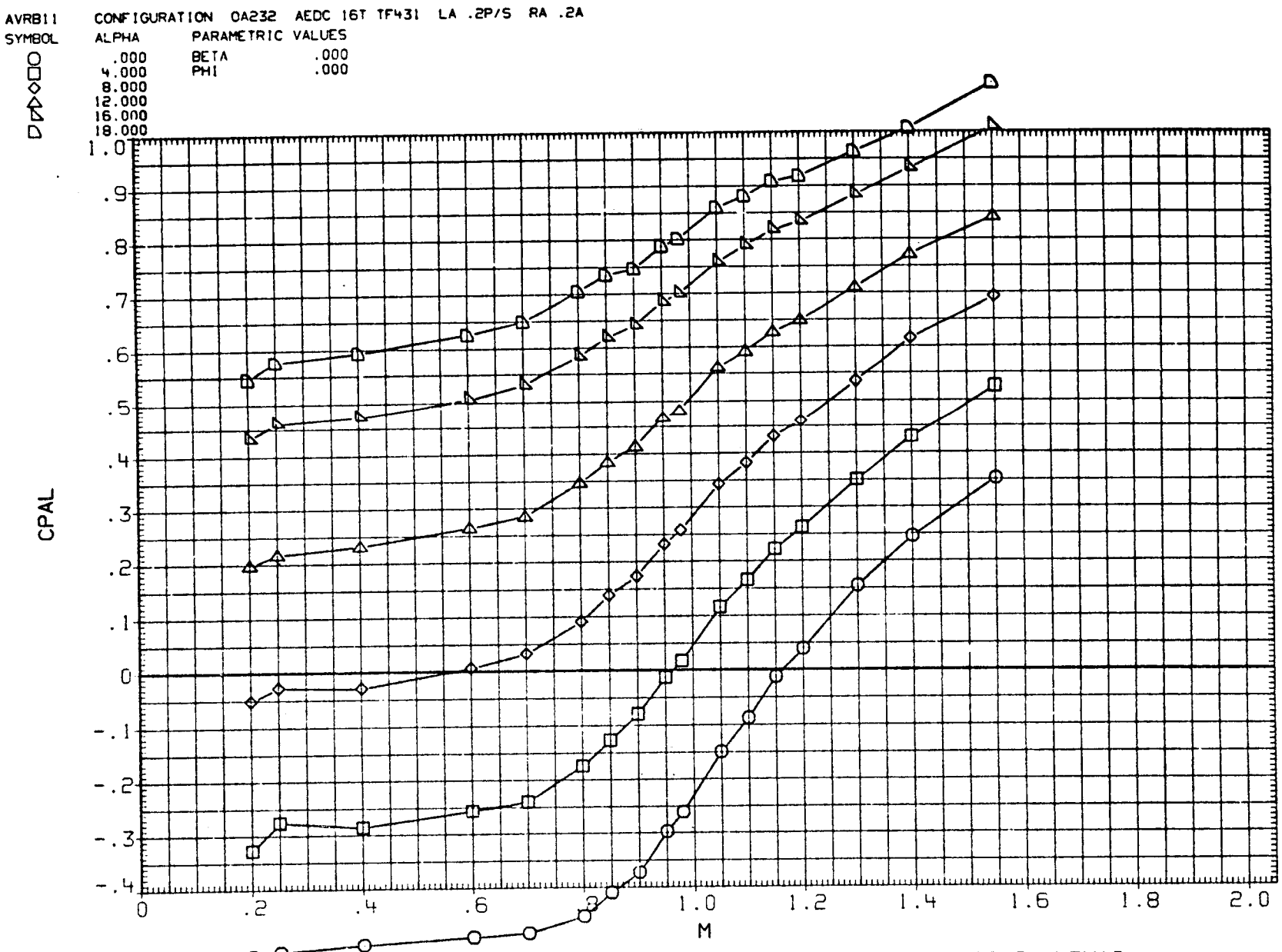


FIG. 34 0A232 SIDE PROBE CPAL VERSUS MACH NUMBER AT VARIOUS ALPHAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON RIGHT SIDE
DATE 09 AUG 78

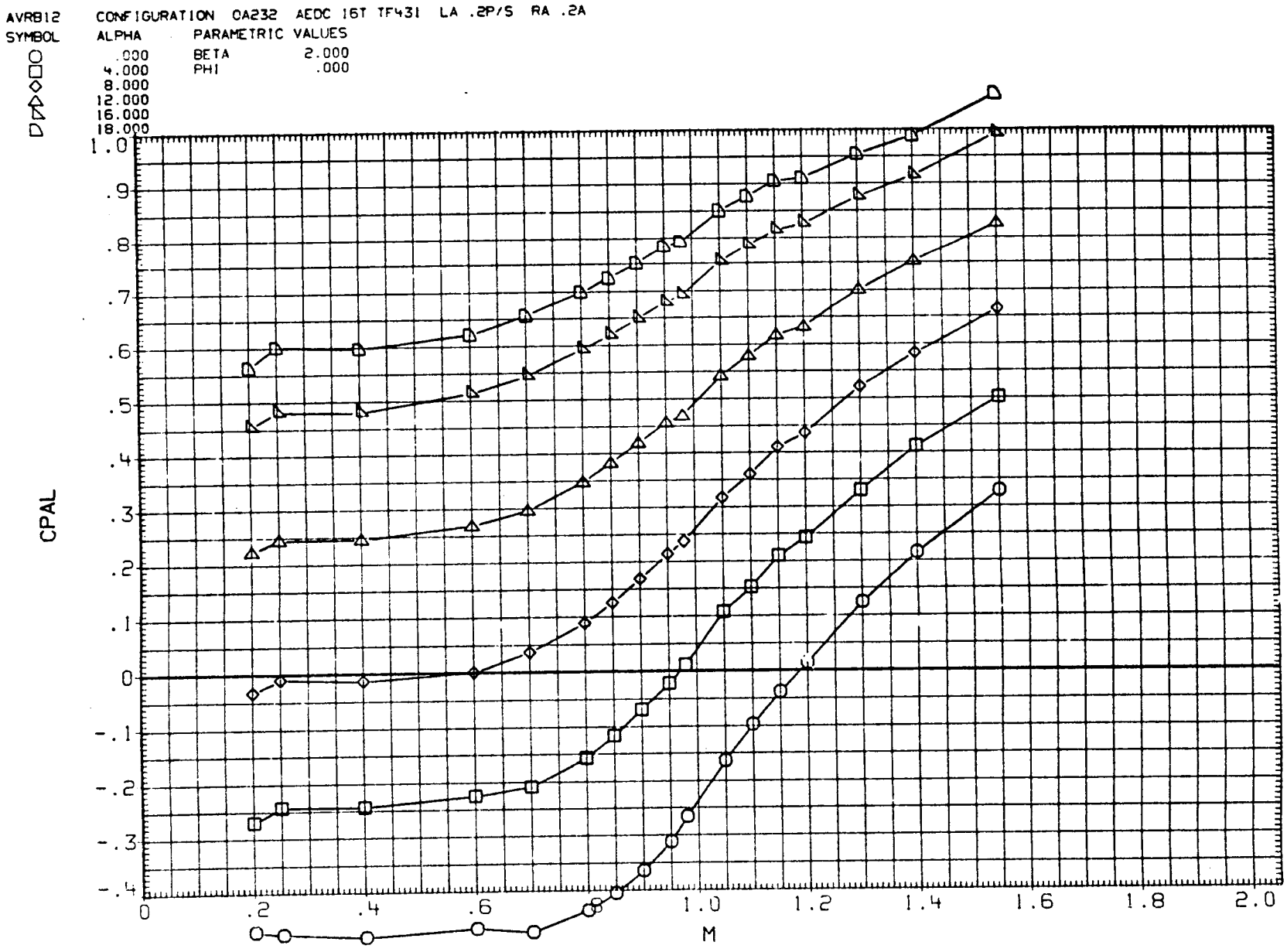


FIG. 34 0A232 SIDE PROBE CPAL VERSUS MACH NUMBER AT VARIOUS ALPHAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON RIGHT SIDE
DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRJ14	○	0A232	AEDC 16T TF431	LA .2A	RFN.1S	.000	.000
AVRI16	□	0A232	AEDC 16T TF431	LA .2A	RFN.1S	.000	.000

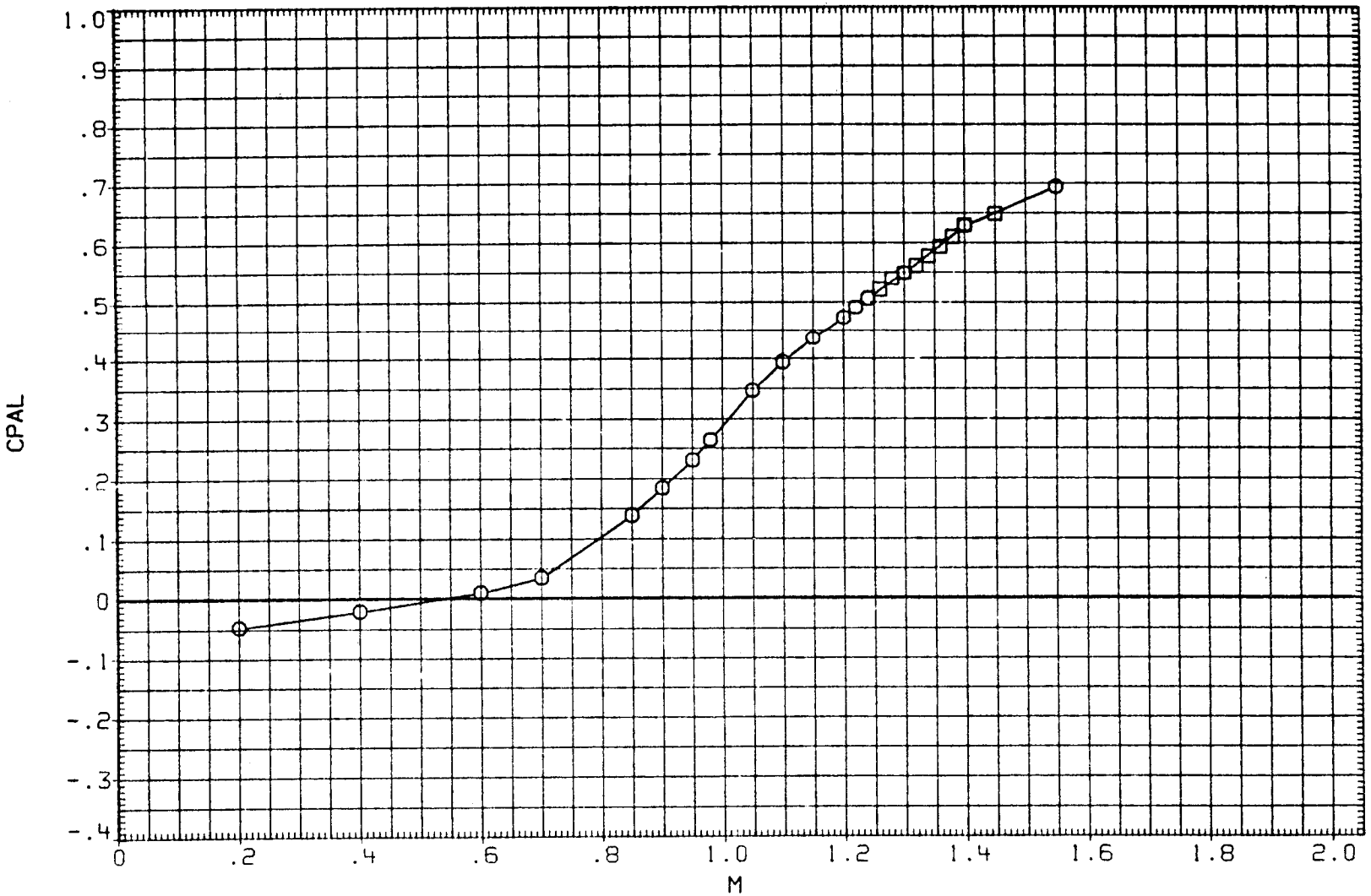


FIG. 35 0A232 SIDE PROBE CPAL VERSUS MACH NUMBER FINE CUT
DATA INTERPOLATED WITH MACH, ALPHA PROBE ON LEFT SIDE

(A) ALPHA = 8.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVRJ14	○	0A232	AEDC 16T	TF431	LA .2A	RFN.1S	.000	.000
AVRI16	□	0A232	AEDC 16T	TF431	LA .2A	RFN.1S	.000	.000

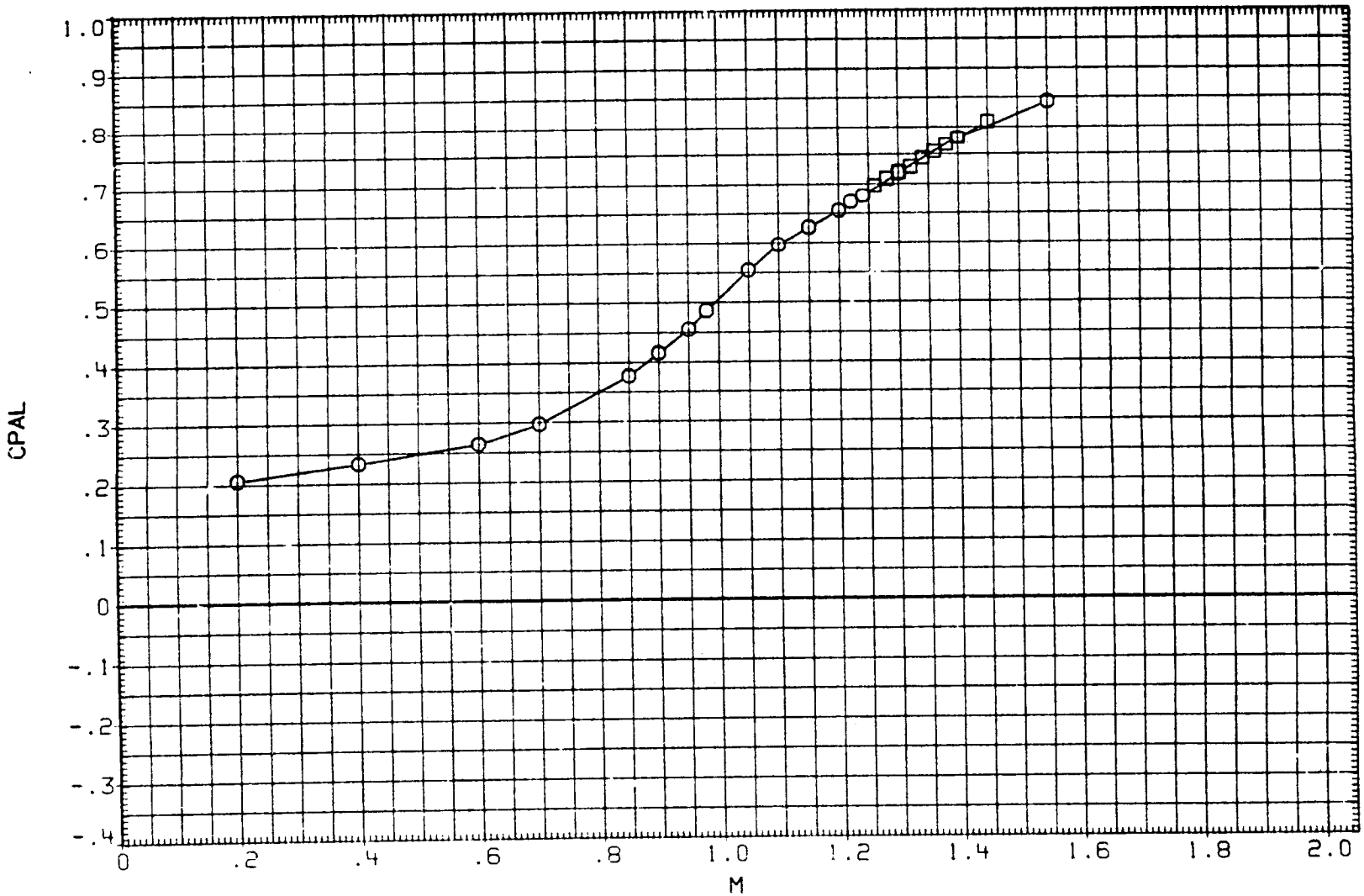


FIG. 35 0A232 SIDE PROBE CPAL VERSUS MACH NUMBER FINE CUT
DATA INTERPOLATED WITH MACH, ALPHA PROBE ON LEFT SIDE

(B) ALPHA = 12.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRJ14	○	0A232	AEDC 16T TF431	LA .2A	RFN.1S	.000	.000
AVRI16	□	0A232	AEDC 16T TF431	LA .2A	RFN.1S	.000	.000

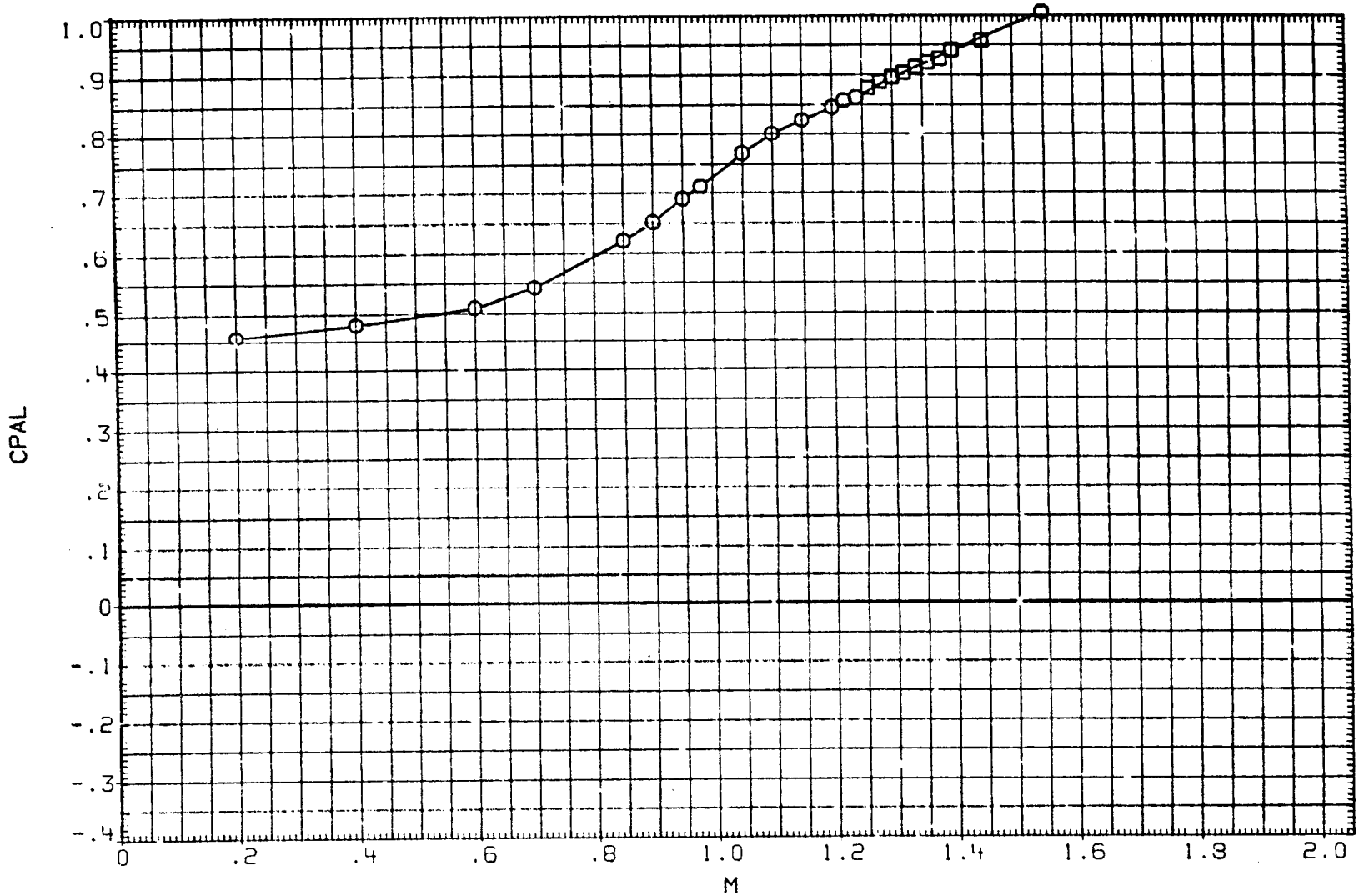


FIG. 35 0A232 SIDE PROBE CPAL VERSUS MACH NUMBER FINE CUT
DATA INTERPOLATED WITH MACH, ALPHA PROBE ON LEFT SIDE

(C) ALPHA = 16.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRJ14	○	0A232	AEDC 16T TF431	LA .2A	RFN.1S	.000	.000
AVR116	□	0A232	AEDC 16T TF431	LA .2A	RFN.1S	.000	.000

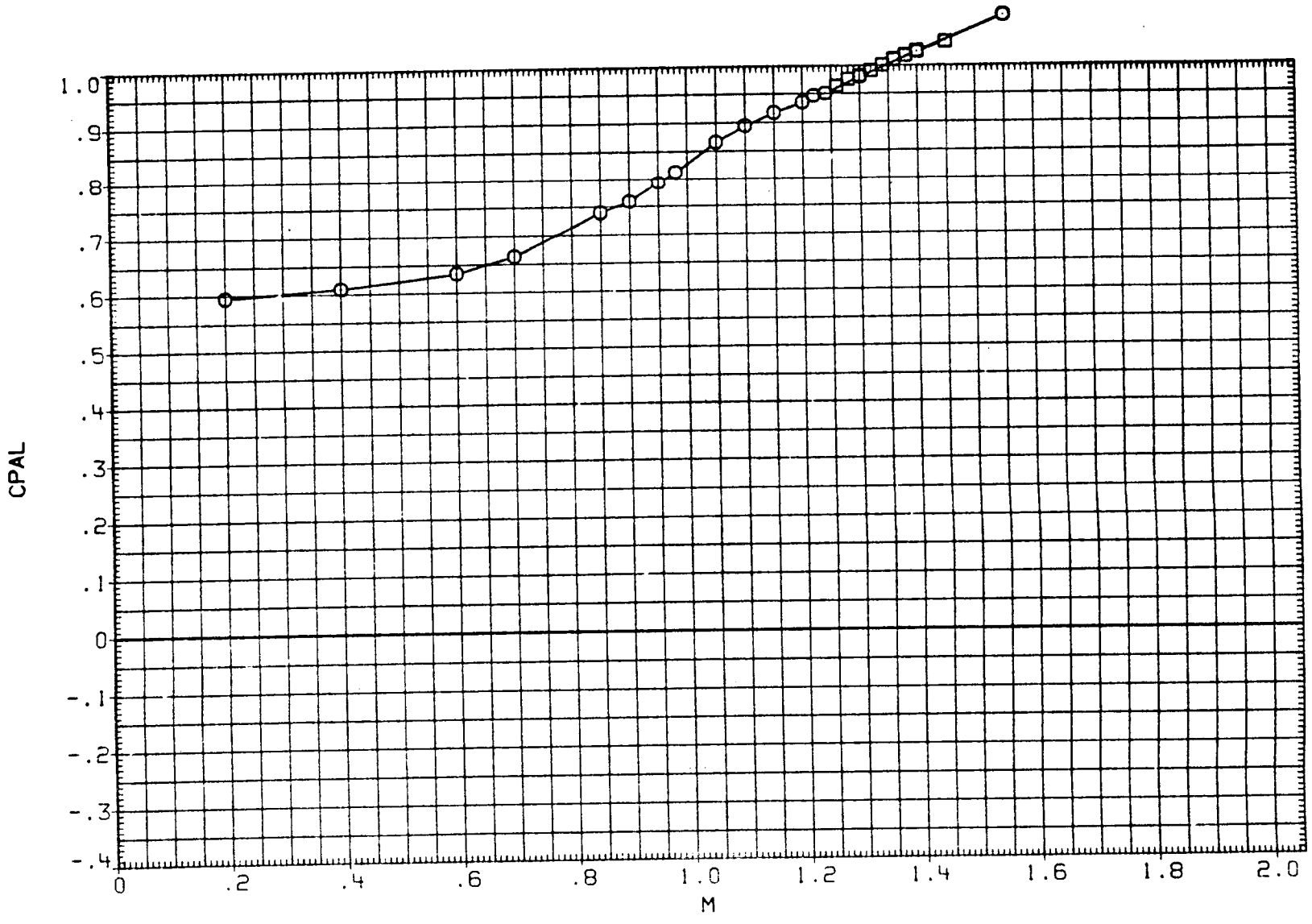


FIG. 35 0A232 SIDE PROBE CPAL VERSUS MACH NUMBER FINE CUT
DATA INTERPOLATED WITH MACH, ALPHA PROBE ON LEFT SIDE

(D) ALPHA = 18.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION						BETA	PHI
AVRJ11	○	0A232	AEDC	16T	TF431	LA .2P/S	RA .2A	.000	.000
AVRI13	□	0A232	AEDC	16T	TF431	LA .2P/S	RA .2A INV	.000	180.000

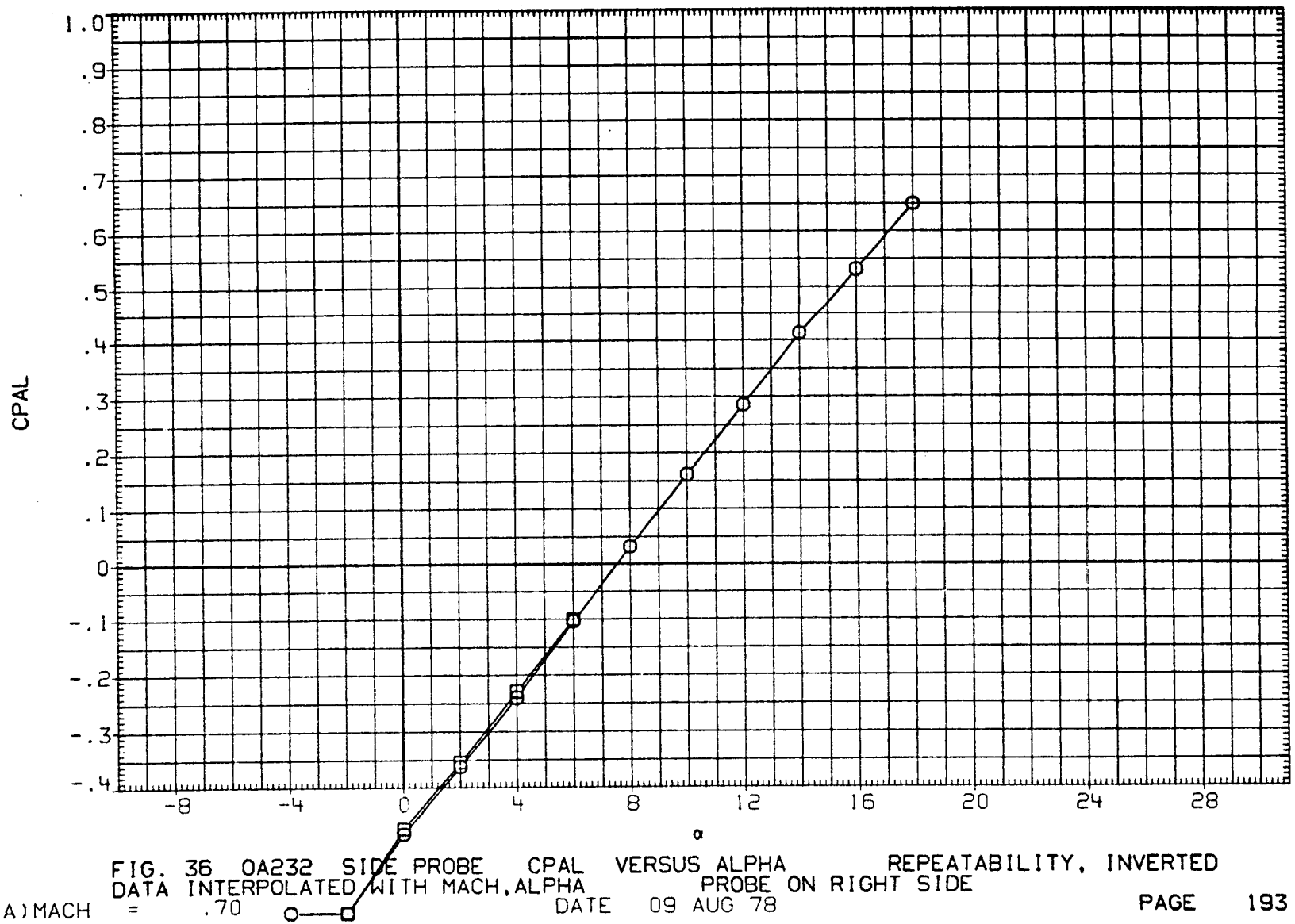


FIG. 36 0A232 SIDE PROBE CPAL VERSUS ALPHA REPEATABILITY, INVERTED PROBE ON RIGHT SIDE
DATA INTERPOLATED WITH MACH, ALPHA

(A) MACH = .70

DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRJ14	○	0A232 AEDC 16T TF431 LA .2A RFN.1S	.000	.000
AVRI17	□	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
AVRI18	◇	DATA NOT AVAILABLE	.000	.000
AVRI19	△	DATA NOT AVAILABLE	.000	.000
AVRI20	▷	DATA NOT AVAILABLE	.000	.000

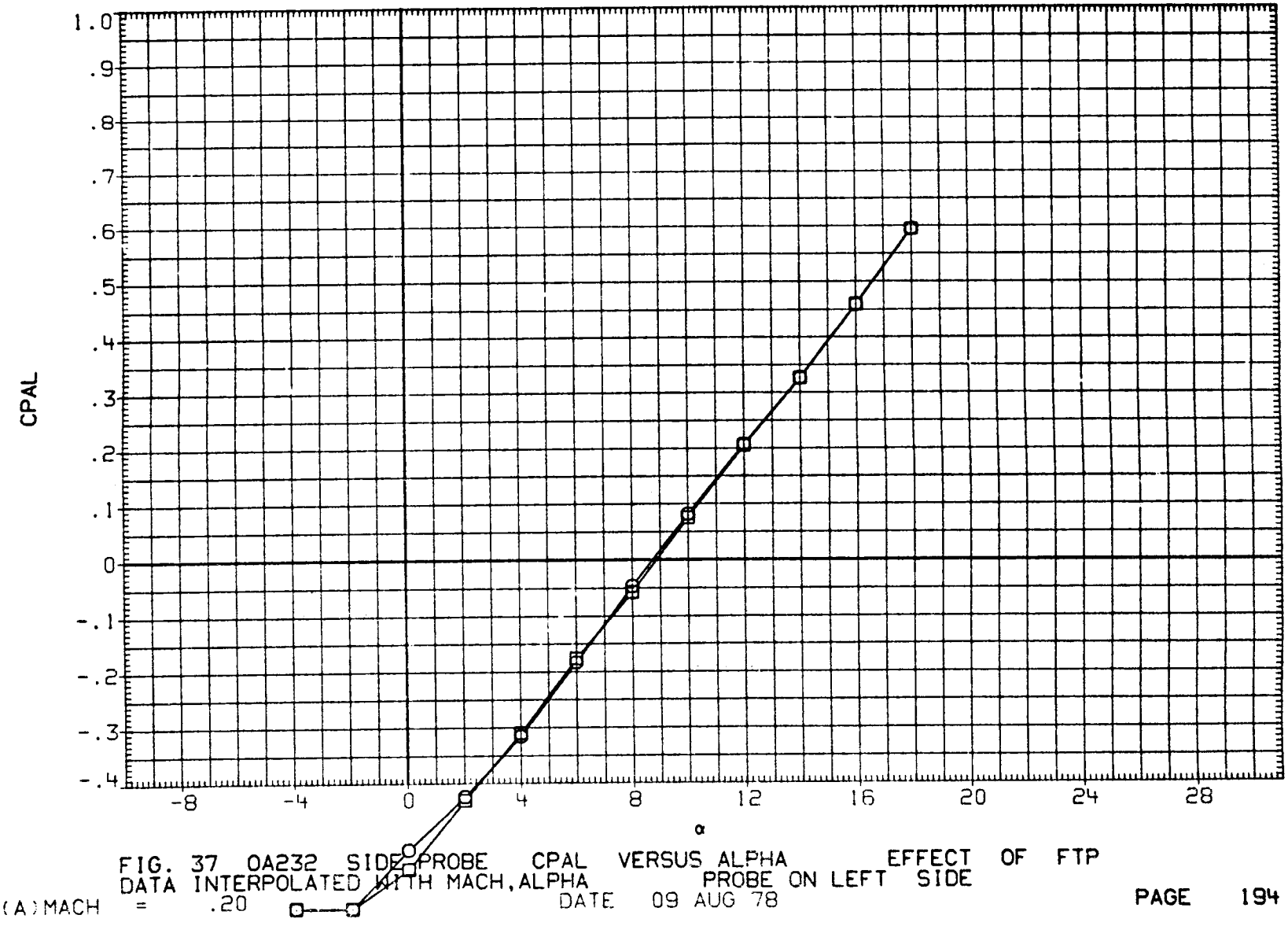


FIG. 37 0A232 SIDE PROBE CPAL VERSUS ALPHA EFFECT OF FTP
DATA INTERPOLATED WITH MACH, ALPHA PROBE ON LEFT SIDE

(A) MACH = .20 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION		BETA	PHI
AVRJ14	○	0A232 AEDC 16T TF431 LA .2A	RFN.1S	.000	.000
AVRI17	□	DATA NOT AVAILABLE		.000	.000
AVRI18	◇	0A232 AEDC 16T TF431 LA .2A	RFN.1S FTP	.000	.000
AVRI19	△	DATA NOT AVAILABLE		.000	.000
AVRI20	▷	DATA NOT AVAILABLE		.000	.000

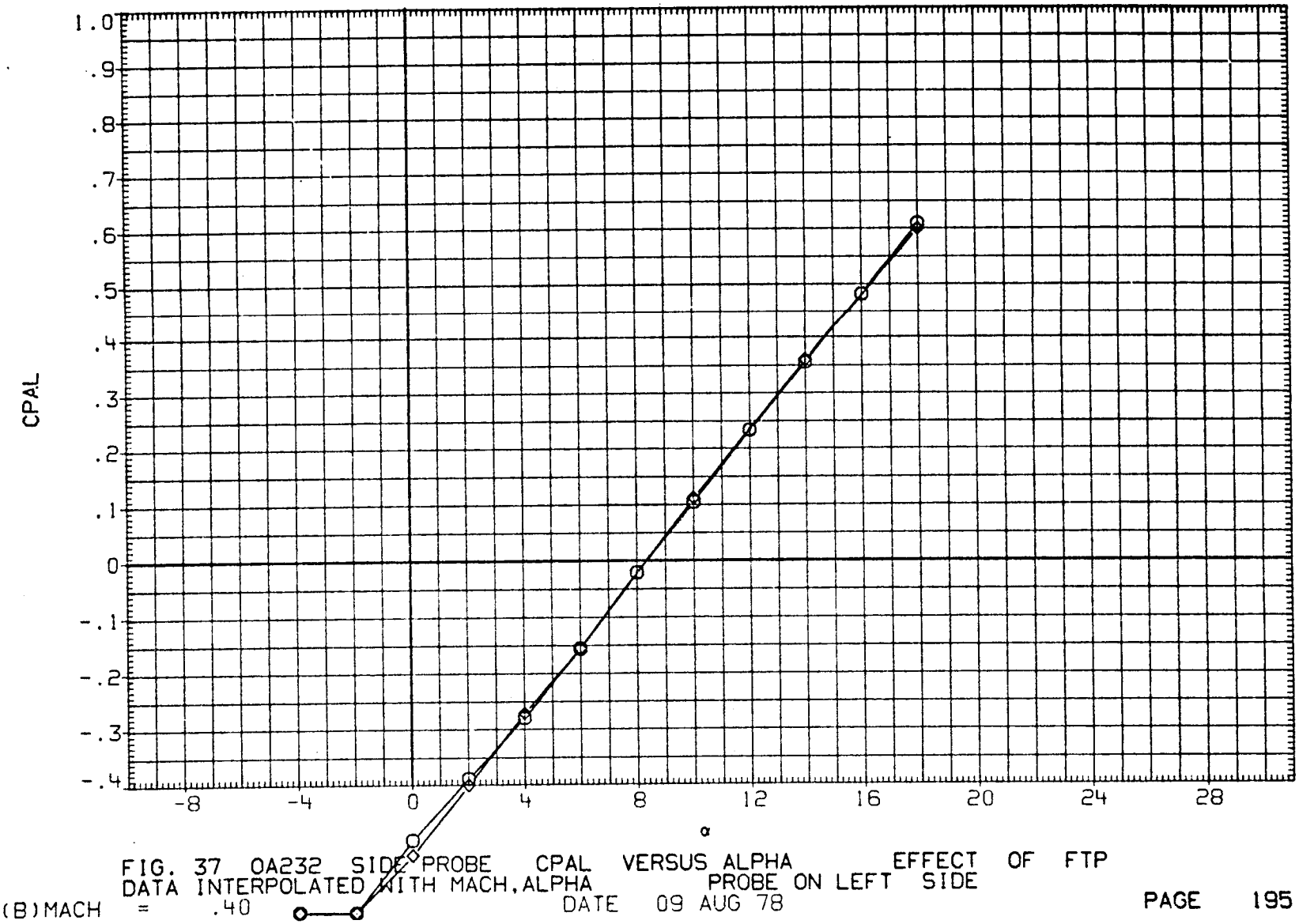


FIG. 37 0A232 SIDE PROBE CPAL VERSUS ALPHA EFFECT OF FTP
DATA INTERPOLATED WITH MACH, ALPHA PROBE ON LEFT SIDE

(B)MACH = .40 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION		BETA	PHI
AVRJ14	○	0A232 AEDC 16T TF431 LA .2A	RFN.1S	.000	.000
AVRI17	□	DATA NOT AVAILABLE		.000	.000
AVRI18	◇	DATA NOT AVAILABLE		.000	.000
AVRI19	△	0A232 AEDC 16T TF431 LA .2A	RFN.1S FTP	.000	.000
AVRI20	▷	DATA NOT AVAILABLE		.000	.000

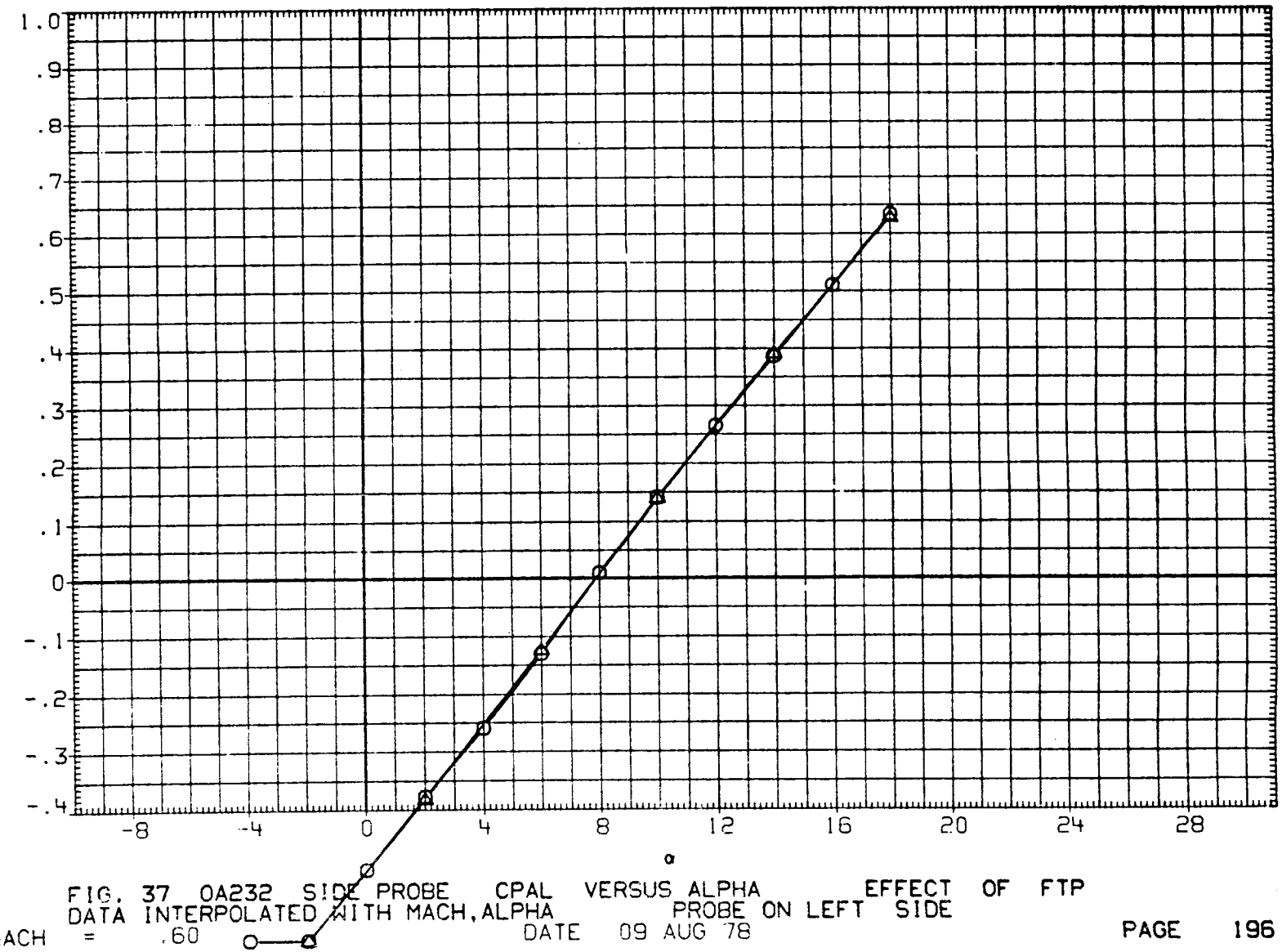


FIG. 37 0A232 SIDE PROBE CPAL VERSUS ALPHA EFFECT OF FTP
DATA INTERPOLATED WITH MACH, ALPHA PROBE ON LEFT SIDE

(C)MACH = .60 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRJ14	○	0A232 AEDC 16T TF431 LA .2A RFN.1S	.000	.000
AVRI17	□	DATA NOT AVAILABLE	.000	.000
AVRI18	◇	DATA NOT AVAILABLE	.000	.000
AVRI19	△	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
AVRI20	▷	DATA NOT AVAILABLE	.000	.000

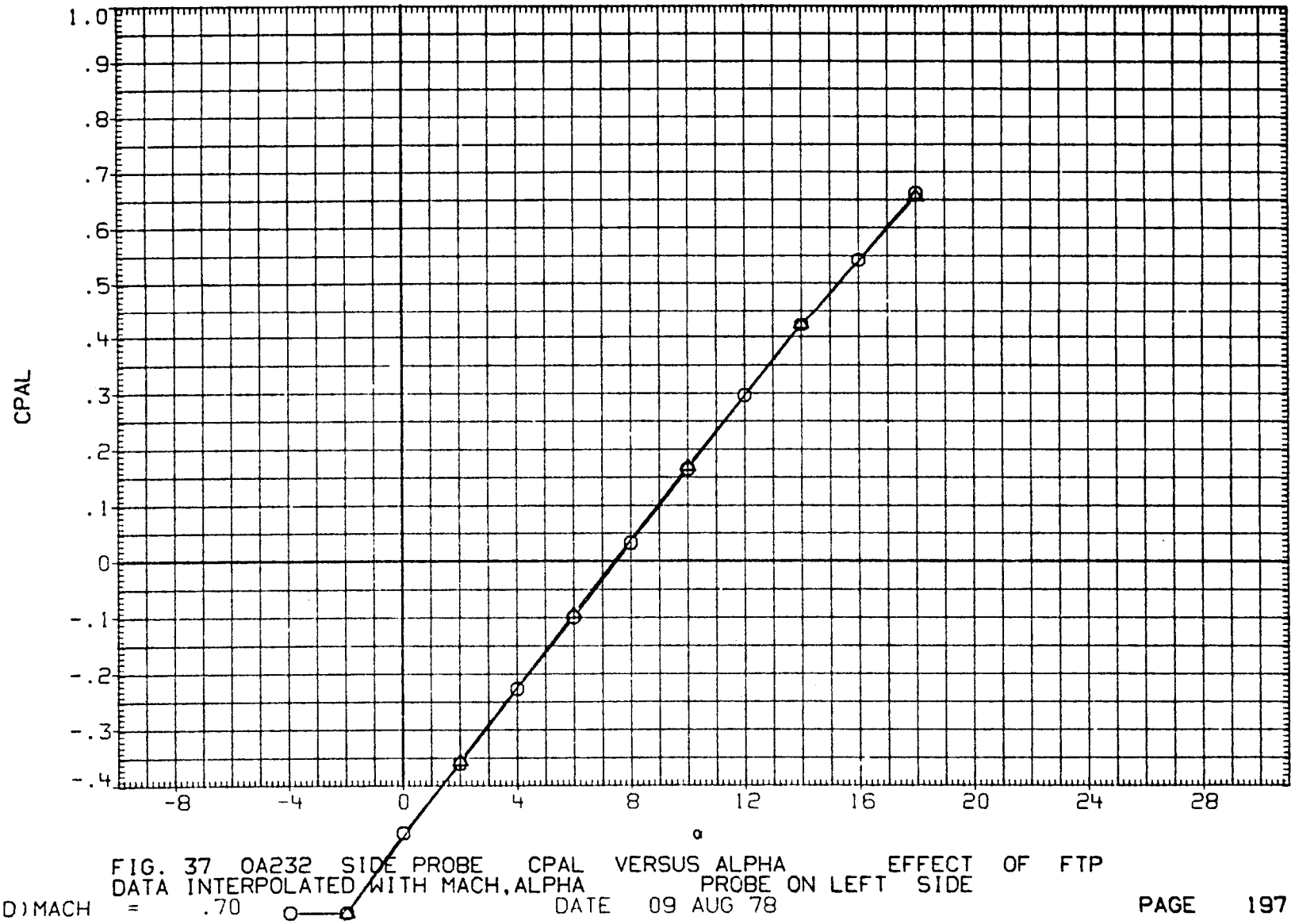


FIG. 37 0A232 SIDE PROBE CPAL VERSUS ALPHA EFFECT OF FTP
DATA INTERPOLATED WITH MACH, ALPHA PROBE ON LEFT SIDE

(D)MACH = .70 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRJ14	○	DATA NOT AVAILABLE	.000	.000
AVRI17	□	DATA NOT AVAILABLE	.000	.000
AVRI18	◇	DATA NOT AVAILABLE	.000	.000
AVRI19	△	DATA NOT AVAILABLE	.000	.000
AVRI20	▷	0A232 AEDC 16T TF431 LA .2A RFN.IS FTP	.000	.000

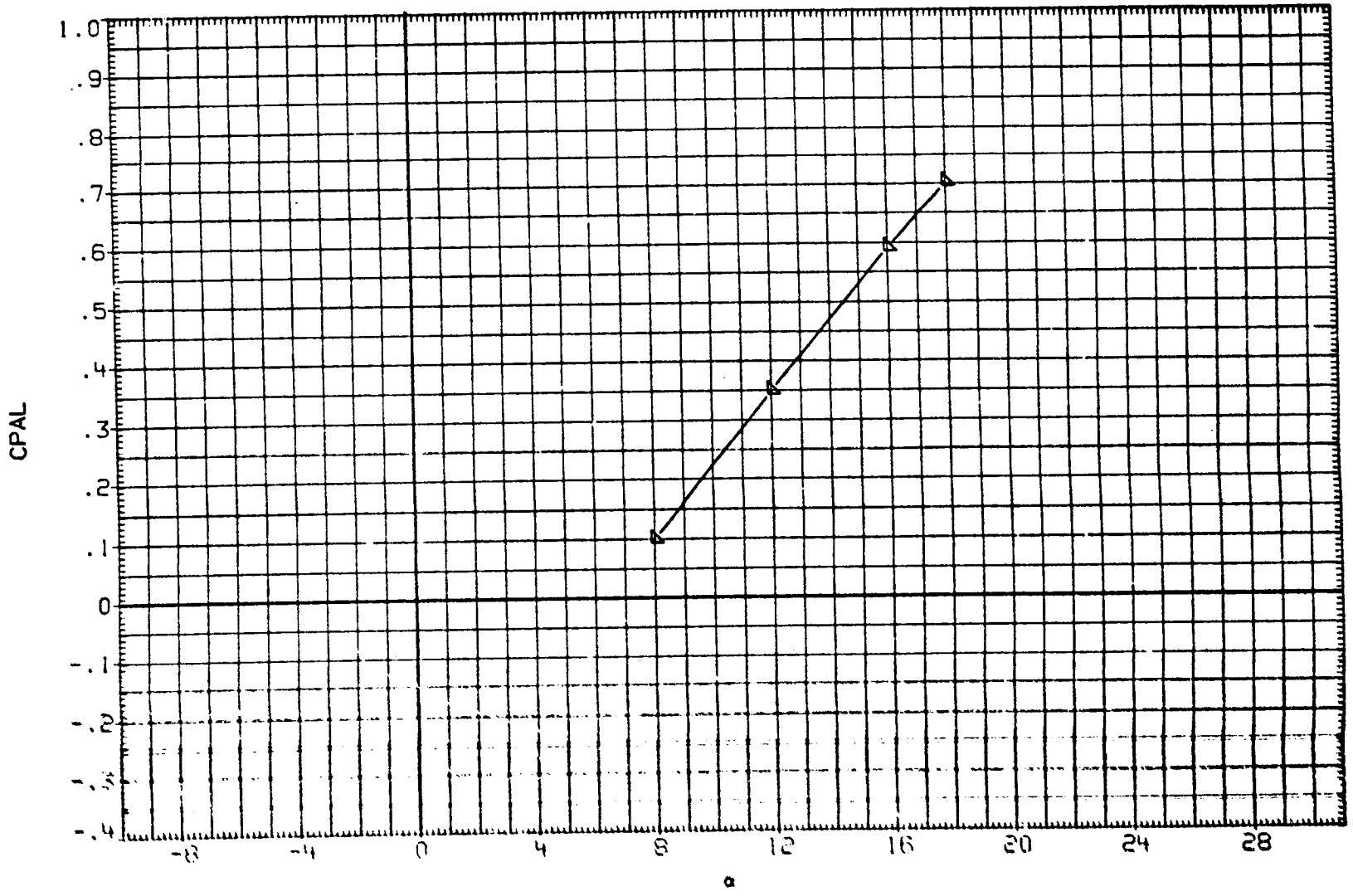


FIG. 37 0A232 SIDE PROBE CPAL VERSUS ALPHA EFFECT OF FTP
DATA INTERPOLATED WITH MACH, ALPHA PROBE ON LEFT SIDE

(E)MACH = .80 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB12	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000
AVRB14	□	0A232 AEDC 16T TF431 LA .2A RFN.1S	.000	.000
AVRB11	◇	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB15	△	0A232 AEDC 16T TF431 LA .2A RFN.1S	2.000	.000

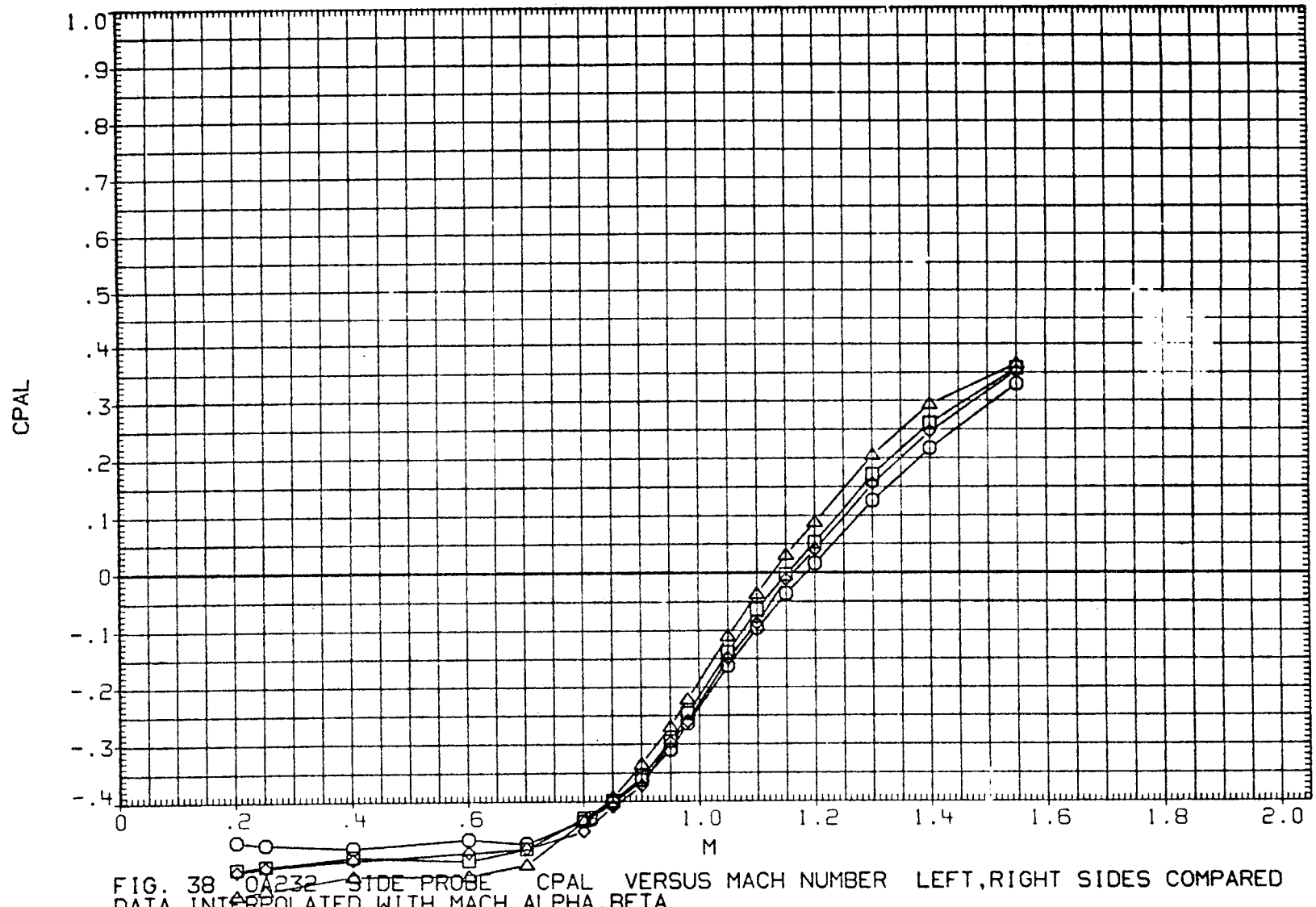


FIG. 38 0A232 SIDE PROBE CPAL VERSUS MACH NUMBER LEFT,RIGHT SIDES COMPARED
DATA INTERPOLATED WITH MACH,ALPHA,BETA

(A)ALPHA = .00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVRB12	○	0A232	AEDC 16T TF431	LA .2P/S	RA .2A		2.000	.000
AVRB14	□	0A232	AEDC 16T TF431	LA .2A	RFN.1S		.000	.000
AVRB11	◇	0A232	AEDC 16T TF431	LA .2P/S	RA .2A		.000	.000
AVRB15	△	0A232	AEDC 16T TF431	LA .2A	RFN.1S		2.000	.000

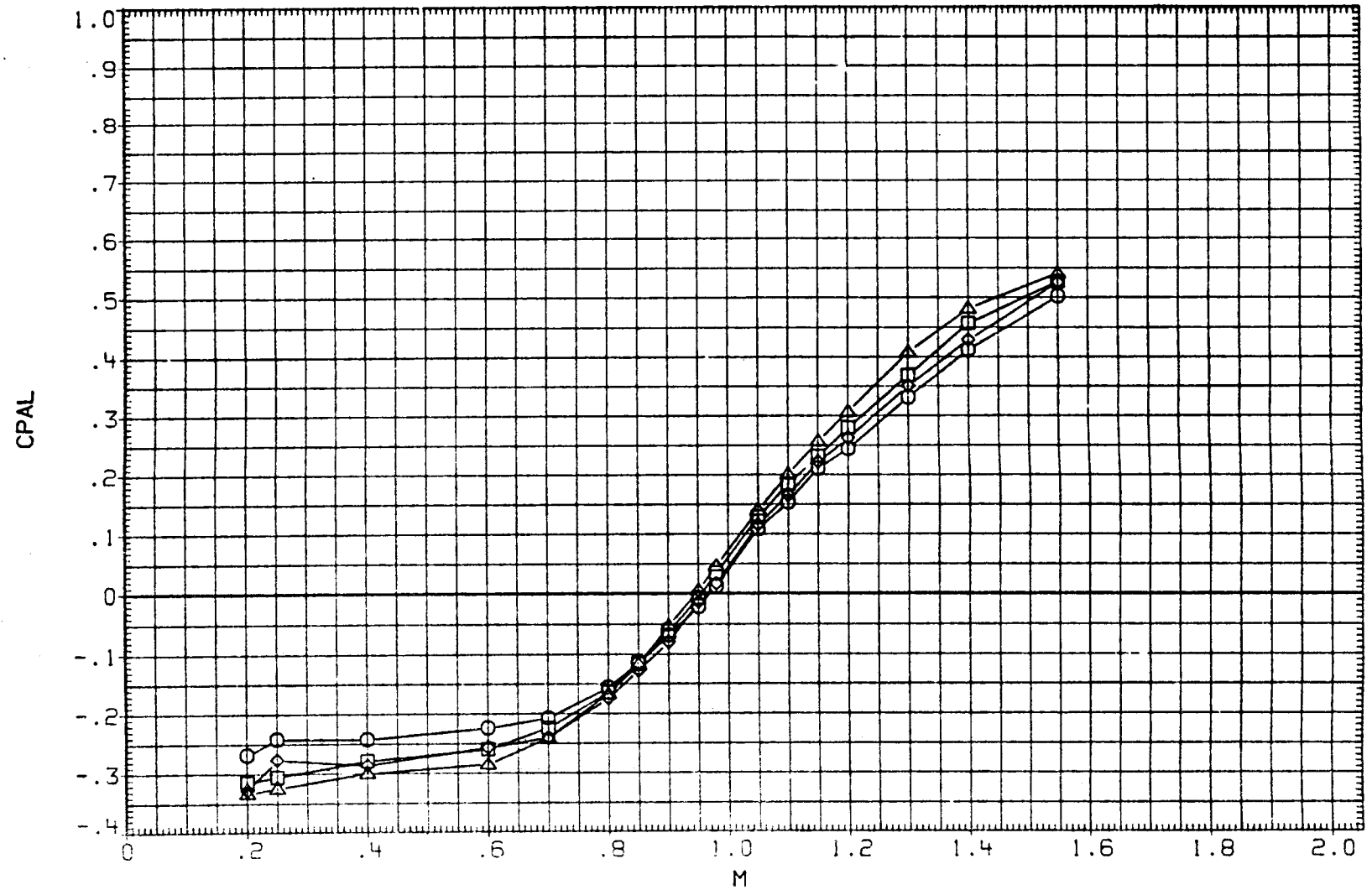


FIG. 38 0A232 SIDE PROBE CPAL VERSUS MACH NUMBER LEFT,RIGHT SIDES COMPARED
DATA INTERPOLATED WITH MACH,ALPHA,BETA

(B)ALPHA = 4.00 DATE 09 AUG 78 PAGE 200

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB12	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000
AVRB14	□	0A232 AEDC 16T TF431 LA .2A RFN.1S	.000	.000
AVRB11	◇	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB15	△	0A232 AEDC 16T TF431 LA .2A RFN.1S	2.000	.000

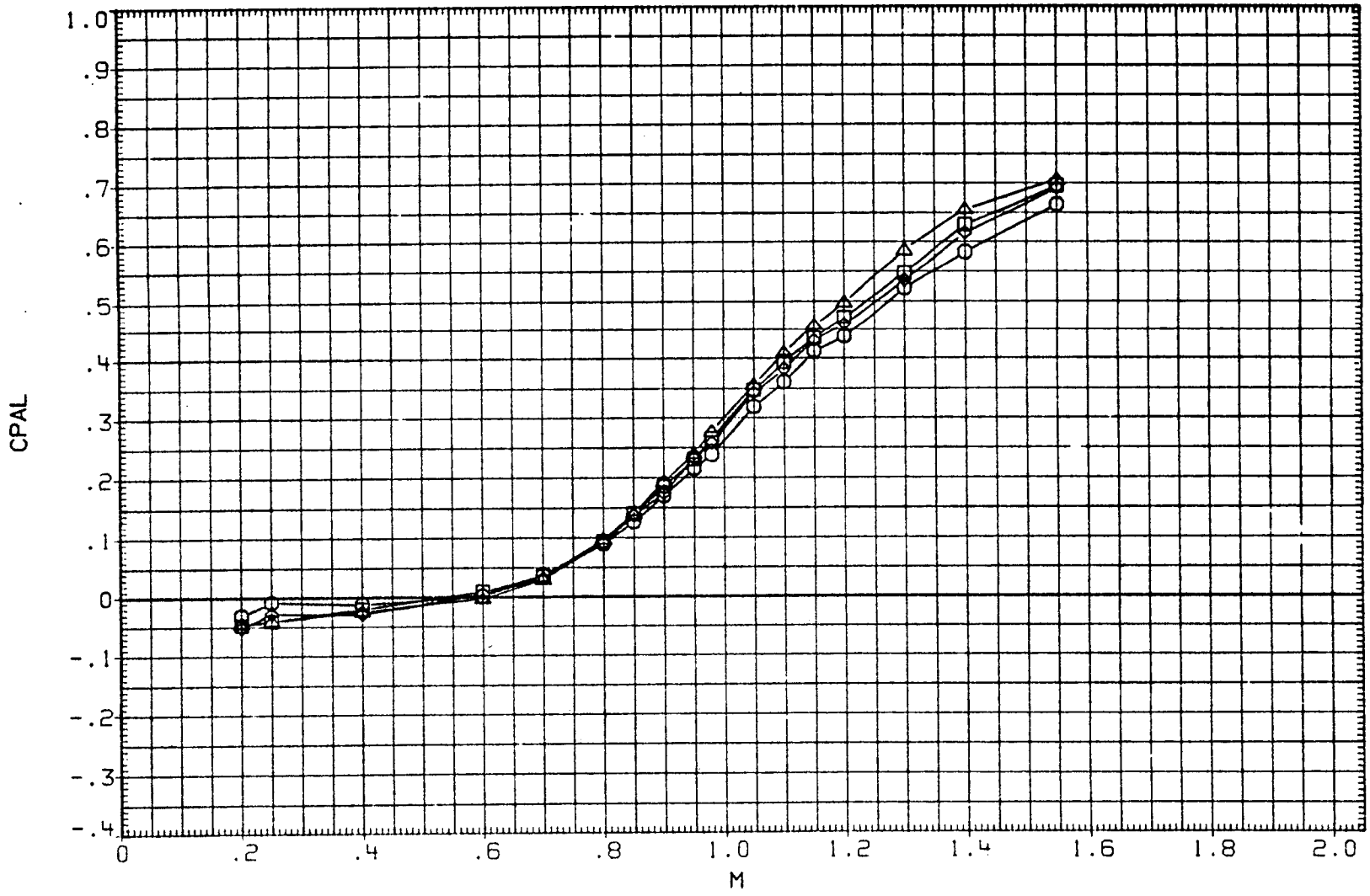


FIG. 38 0A232 SIDE PROBE CPAL VERSUS MACH NUMBER LEFT,RIGHT SIDES COMPARED
DATA INTERPOLATED WITH MACH,ALPHA,BETA

(C)ALPHA = 8.00 DATE 09 AUG 78 PAGE 201

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB12	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000
AVRB14	□	0A232 AEDC 16T TF431 LA .2A RFN.1S	.000	.000
AVRB11	◇	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB15	△	0A232 AEDC 16T TF431 LA .2A RFN.1S	2.000	.000

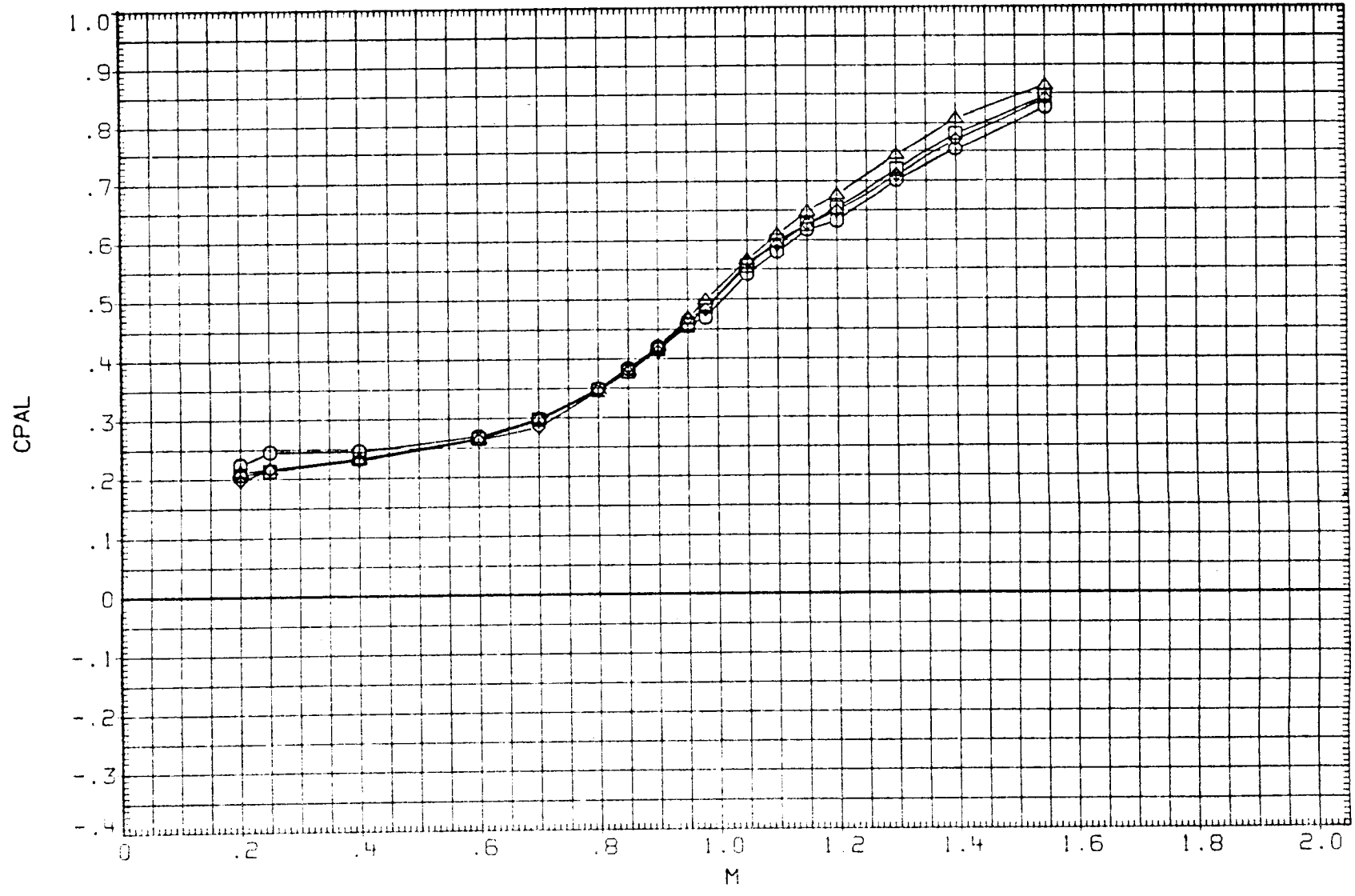


FIG. 38 0A232 SIDE PROBE CPAL VERSUS MACH NUMBER LEFT,RIGHT SIDES COMPARED
DATA INTERPOLATED WITH MACH,ALPHA,BETA

(D)ALPHA = 12.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB12	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000
AVRB14	□	0A232 AEDC 16T TF431 LA .2A RFN.1S	.000	.000
AVRB11	◇	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB15	△	0A232 AEDC 16T TF431 LA .2A RFN.1S	2.000	.000

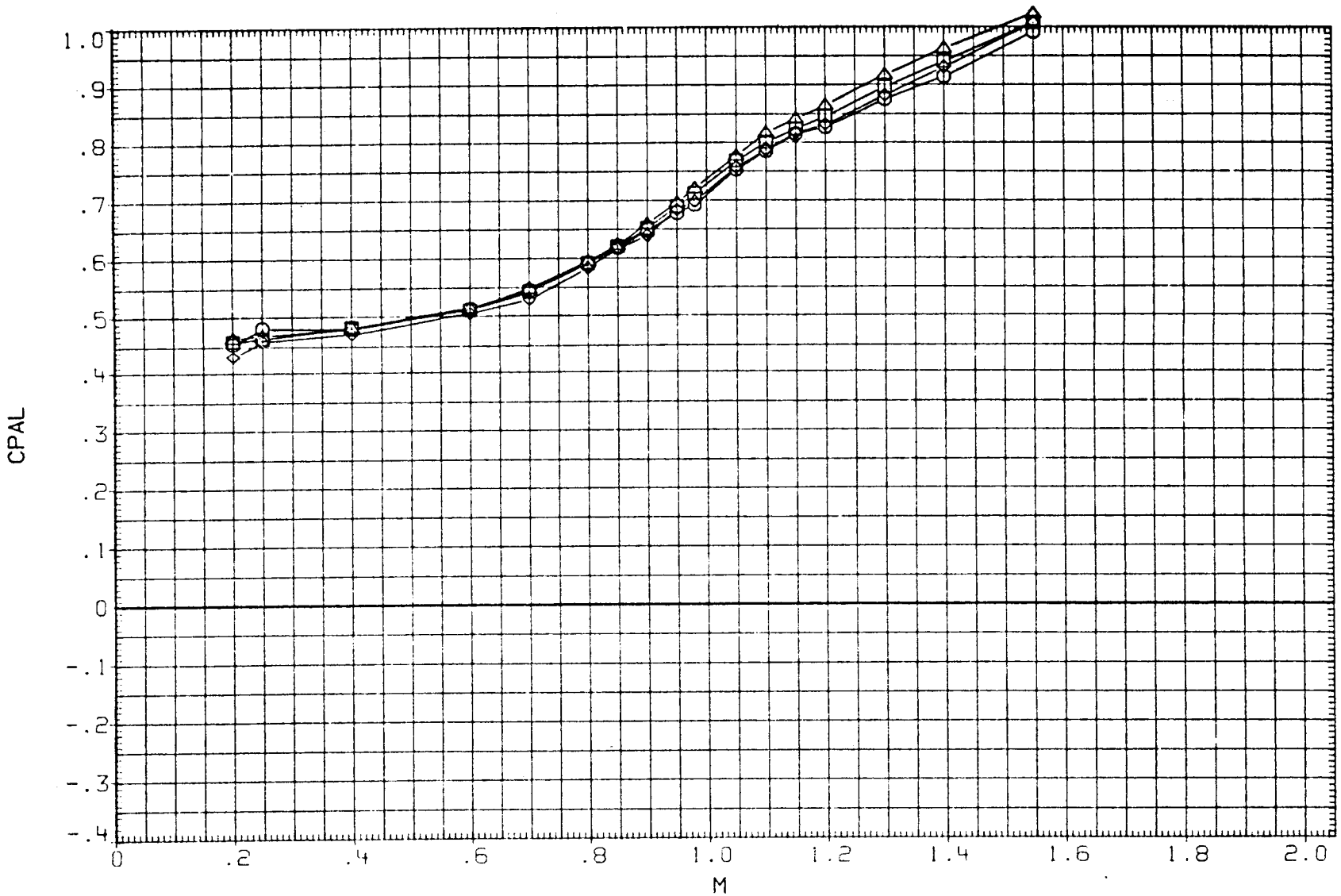


FIG. 38 0A232 SIDE PROBE CPAL VERSUS MACH NUMBER LEFT,RIGHT SIDES COMPARED
DATA INTERPOLATED WITH MACH,ALPHA,BETA

(E)ALPHA = 16.00 DATE 09 AUG 78 PAGE 203

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVRB12	○	0A232	AEDC	16T	TF431	LA .2P/S RA .2A	2.000	.000
AVRB14	□	0A232	AEDC	16T	TF431	LA .2A RFN.1S	.000	.000
AVRB11	◇	0A232	AEDC	16T	TF431	LA .2P/S RA .2A	.000	.000
AVRB15	△	0A232	AEDC	16T	TF431	LA .2A RFN.1S	2.000	.000

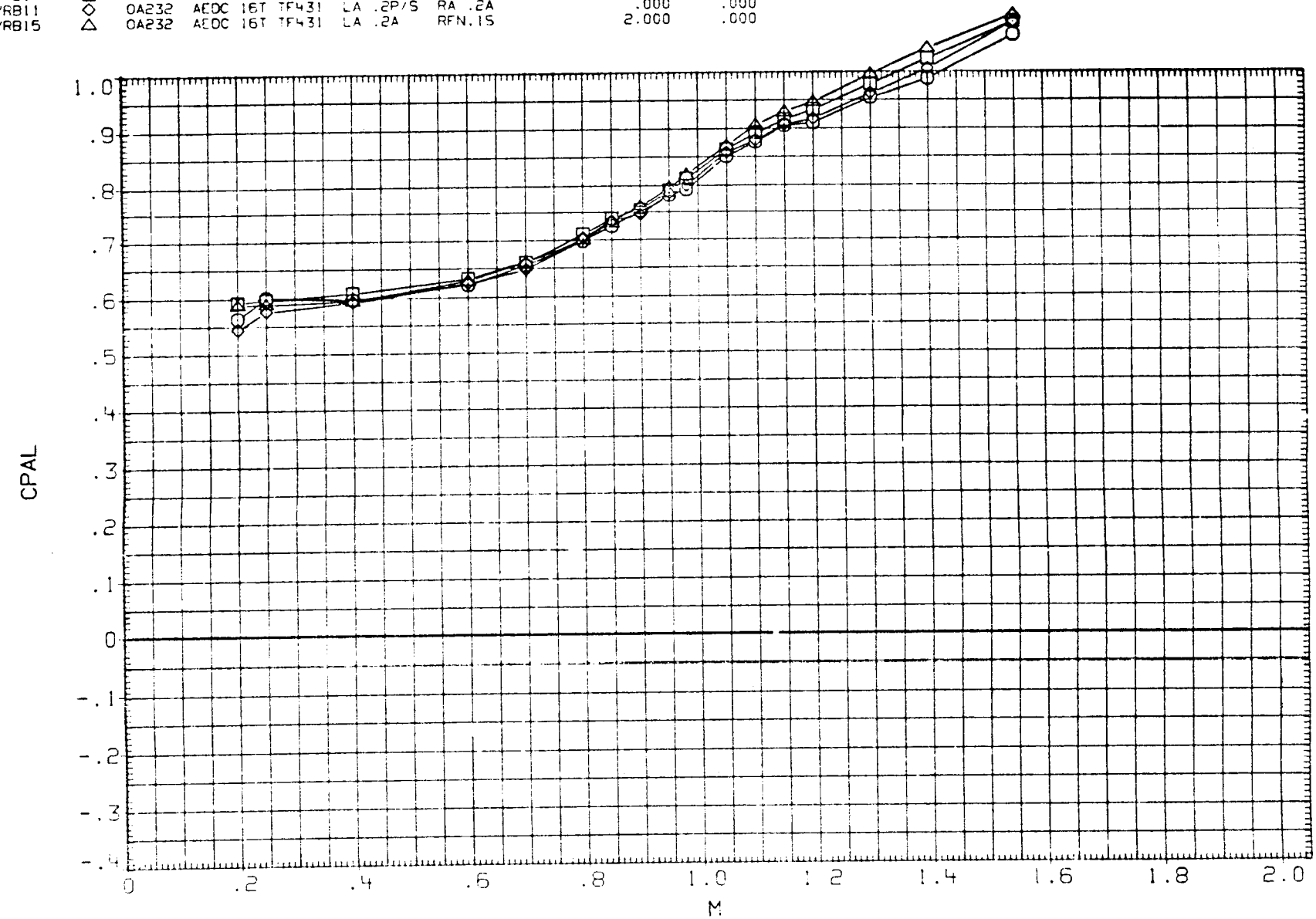


FIG. 38 0A232 SIDE PROBE CPAL VERSUS MACH NUMBER LEFT,RIGHT SIDES COMPARED
DATA INTERPOLATED WITH MACH,ALPHA,BETA

(F)ALPHA = 18.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRB14	○	0A232	AEDC 16T TF431	LA .2A	RFN.1S	.000	.000
AVRB15	□	0A232	AEDC 16T TF431	LA .2A	RFN.1S	2.000	.000

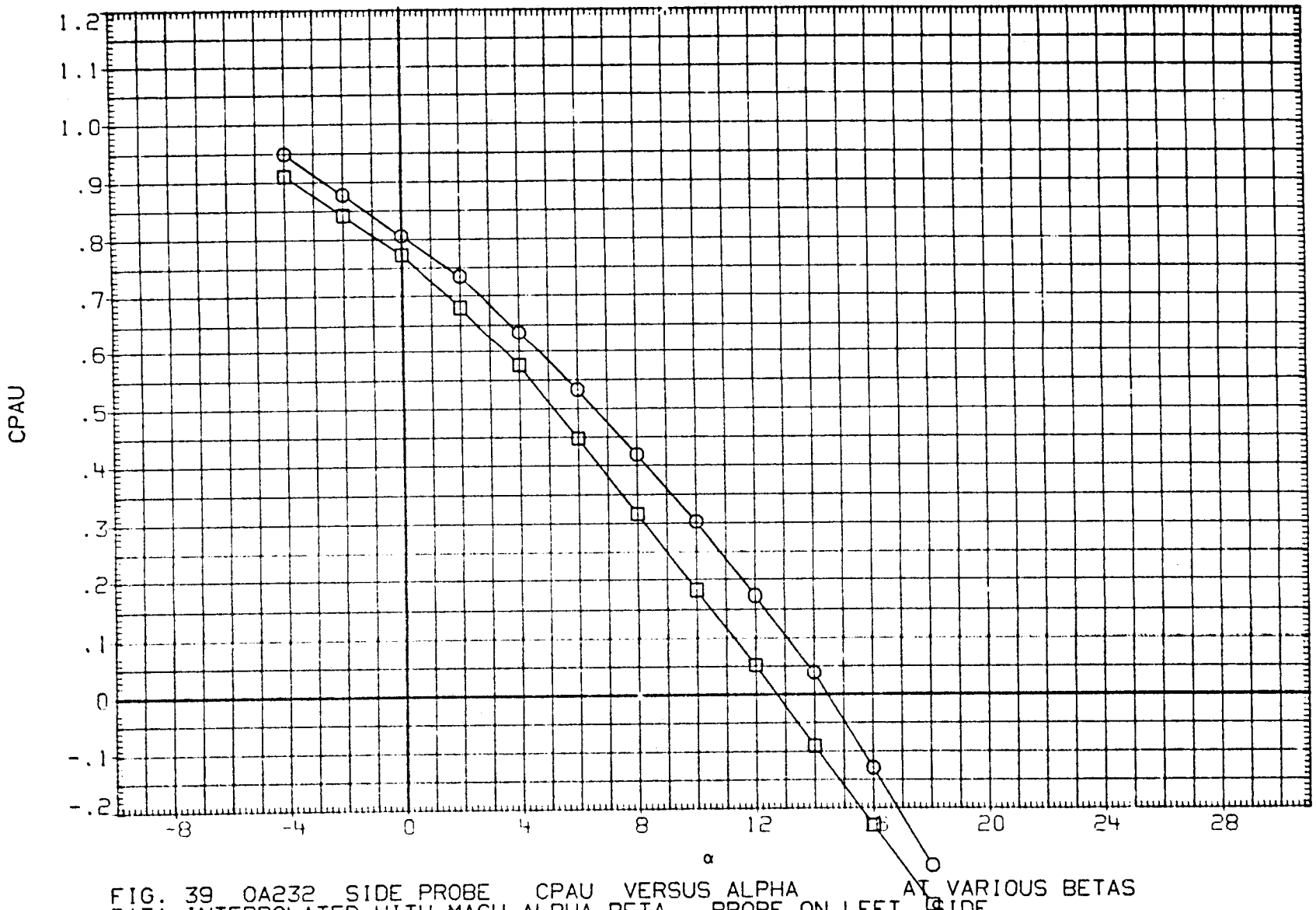


FIG. 39 0A232 SIDE PROBE CPAU VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON LEFT SIDE

(A)MACH = .20

DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION		BETA	PHI
AVRB14	○	0A232 AEDC 16T TF431 LA .2A	RFN.1S	.000	.000
AVRB15	□	0A232 AEDC 16T TF431 LA .2A	RFN.1S	2.000	.000

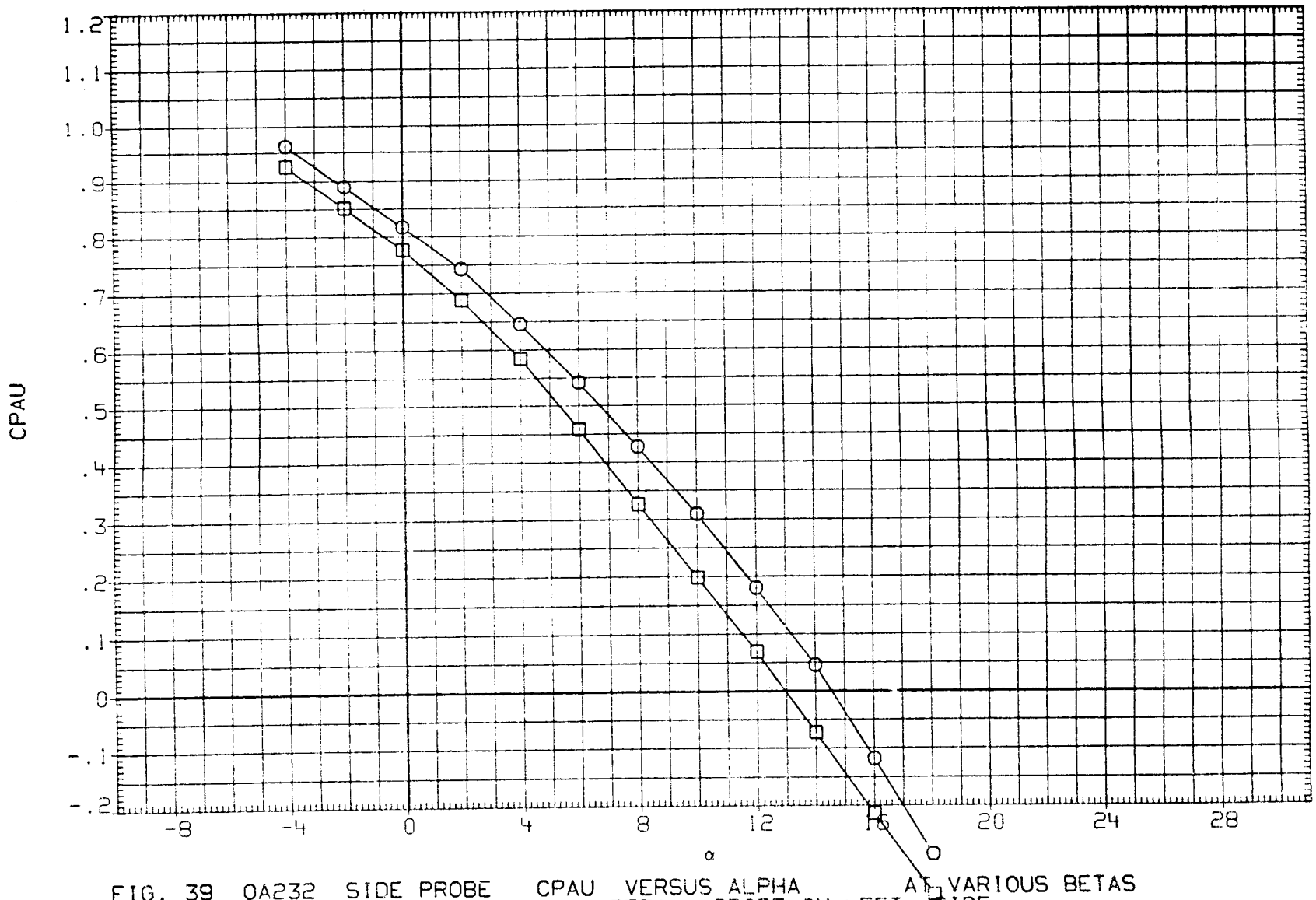


FIG. 39 0A232 SIDE PROBE CPAU VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON LEFT SIDE

(B)MACH = .25 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVPB14	○	0A232	AEDC 16T TF431 LA .2A	RFN.1S		.000	.000
AVRB15	□	0A232	AEDC 16T TF431 LA .2A	RFN.1S		2.000	.000

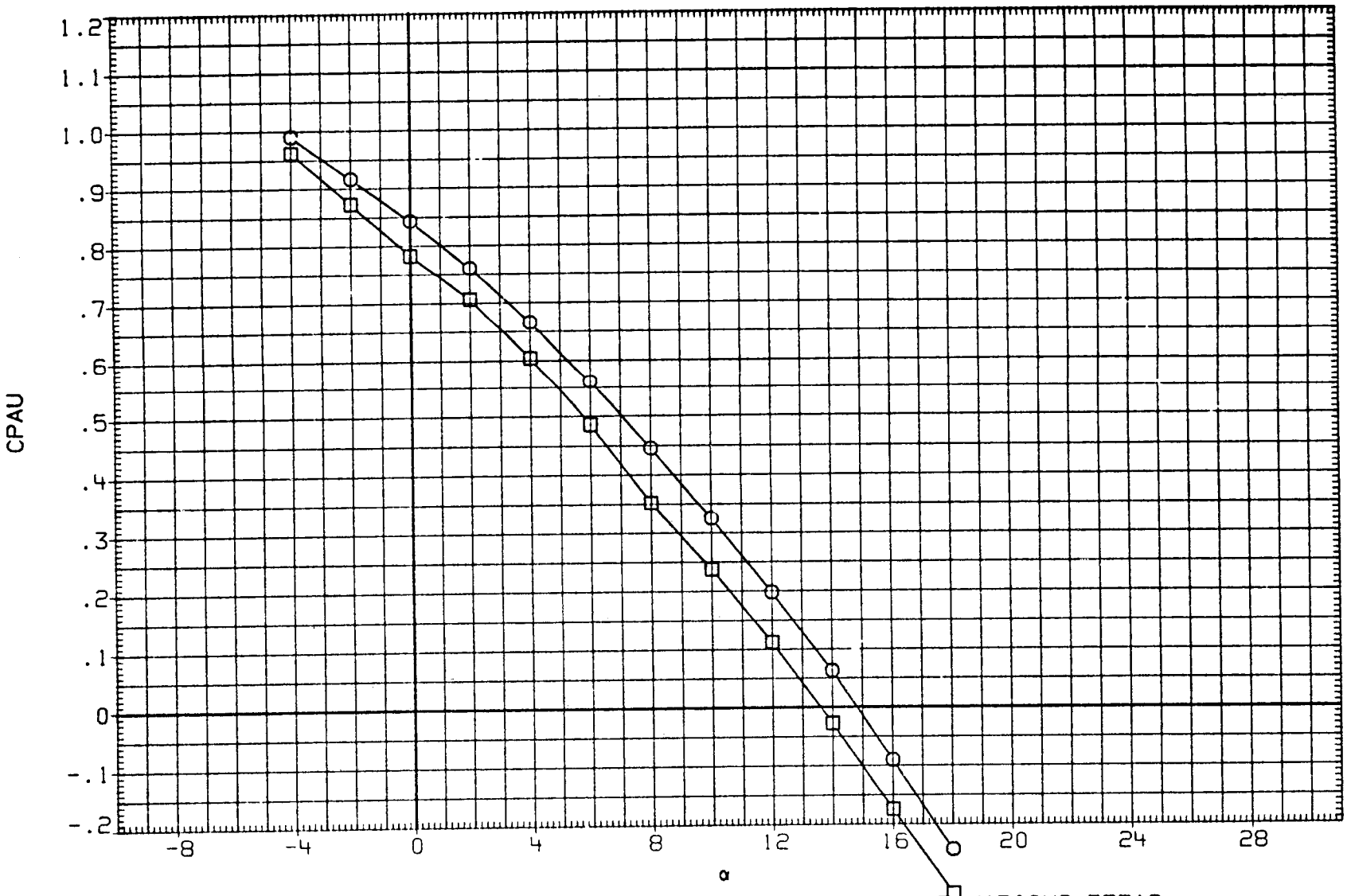


FIG. 39 0A232 SIDE PROBE CPAU VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON LEFT SIDE

(C)MACH = .40 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRB14	○	0A232	AEDC 16T TF431	LA .2A	RFN.1S	.000	.000
AVRB15	□	0A232	AEDC 16T TF431	LA .2A	RFN.1S	2.000	.000

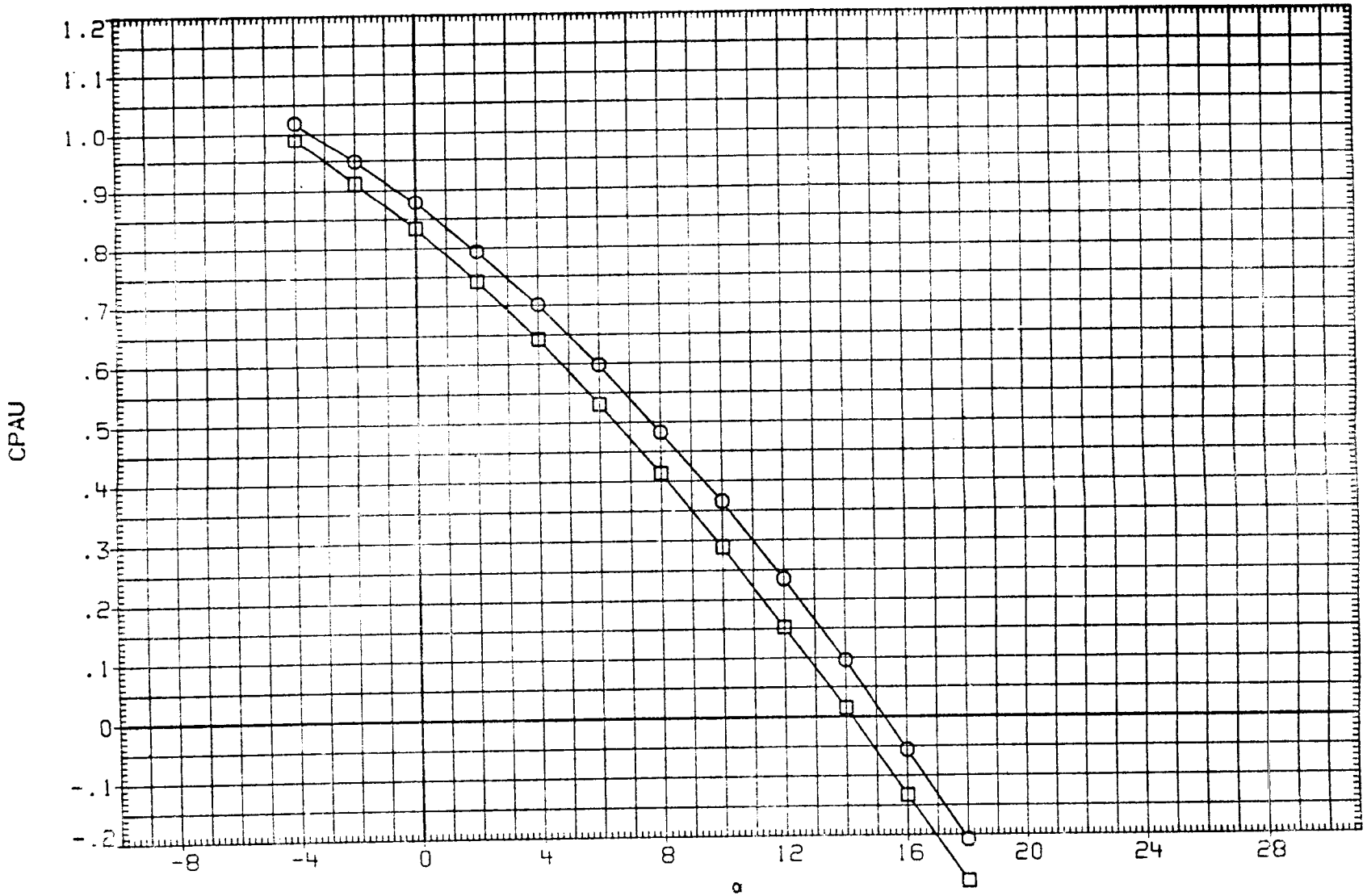


FIG. 39 0A232 SIDE PROBE CPAU VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON LEFT SIDE

(D)MACH = .60 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB14	○	0A232 AEDC 16T TF431 LA .2A RFN.1S	.000	.000
AVRB15	□	0A232 AEDC 16T TF431 LA .2A RFN.1S	2.000	.000

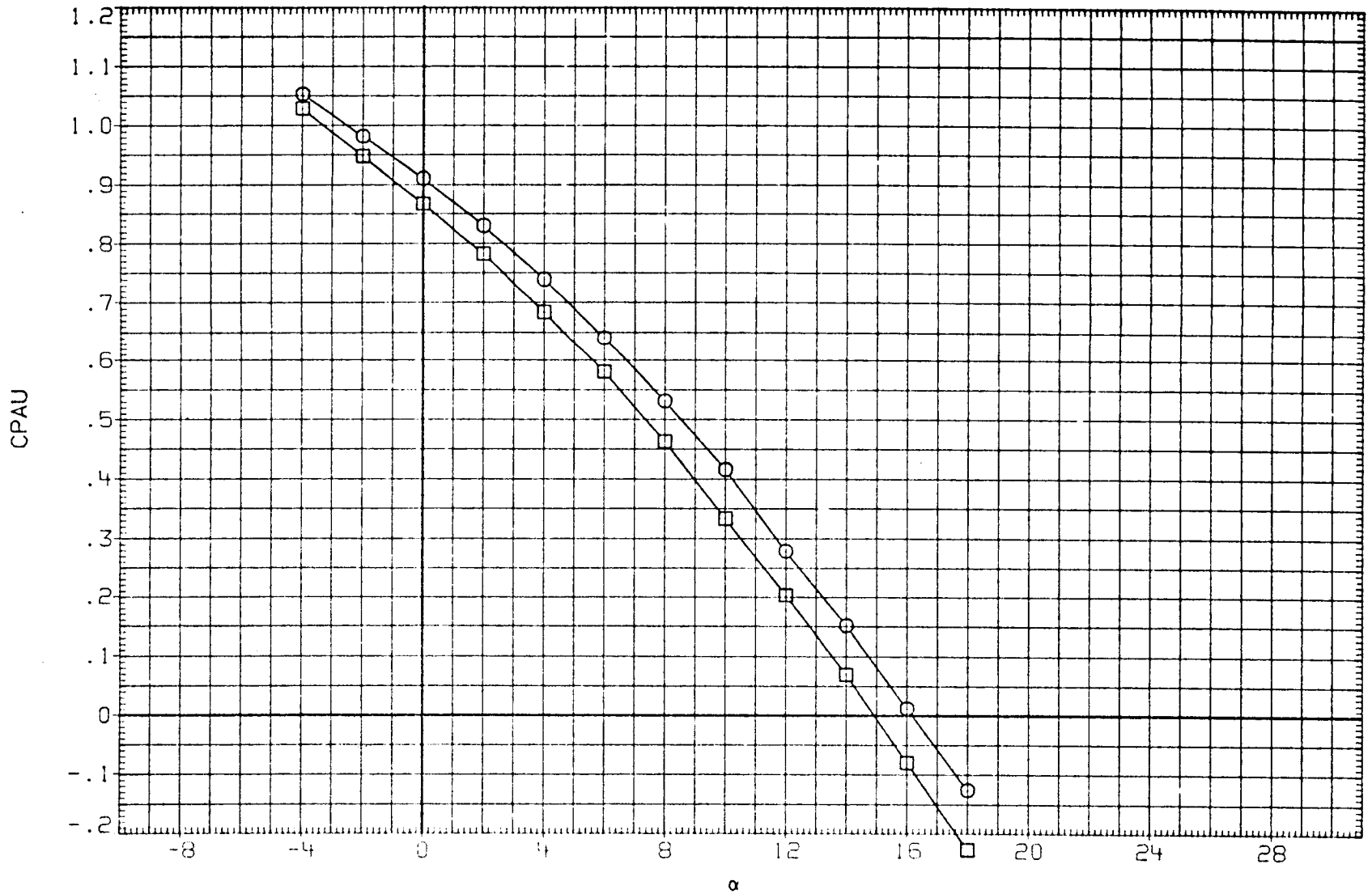


FIG. 39 0A232 SIDE PROBE CPAU VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON LEFT SIDE

(E)MACH = .70 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRB14	○	0A232	AEDC 16T TF431	LA .2A	REN.15	.000	.000
AVRB15	□	0A232	AEDC 16T TF431	LA .2A	REN.15	2.000	.000

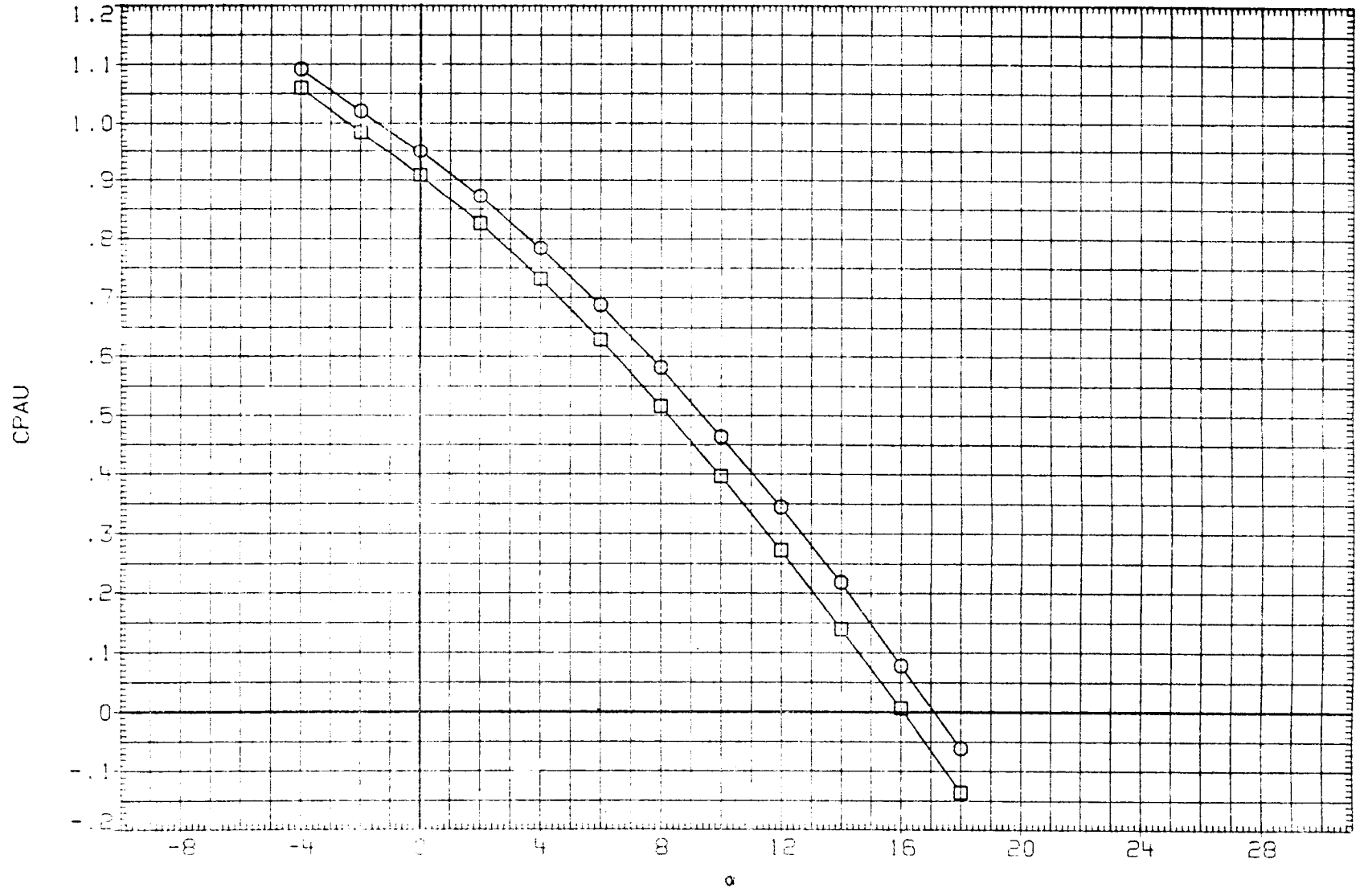


FIG. 39 0A232 SIDE PROBE CPAU VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON LEFT SIDE

(F)MACH = .80 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRB14	○	0A232	AEDC 16T TF431	LA .2A	RFN.1S	.000	.000
AVRB15	□	0A232	AEDC 16T TF431	LA .2A	RFN.1S	2.000	.000

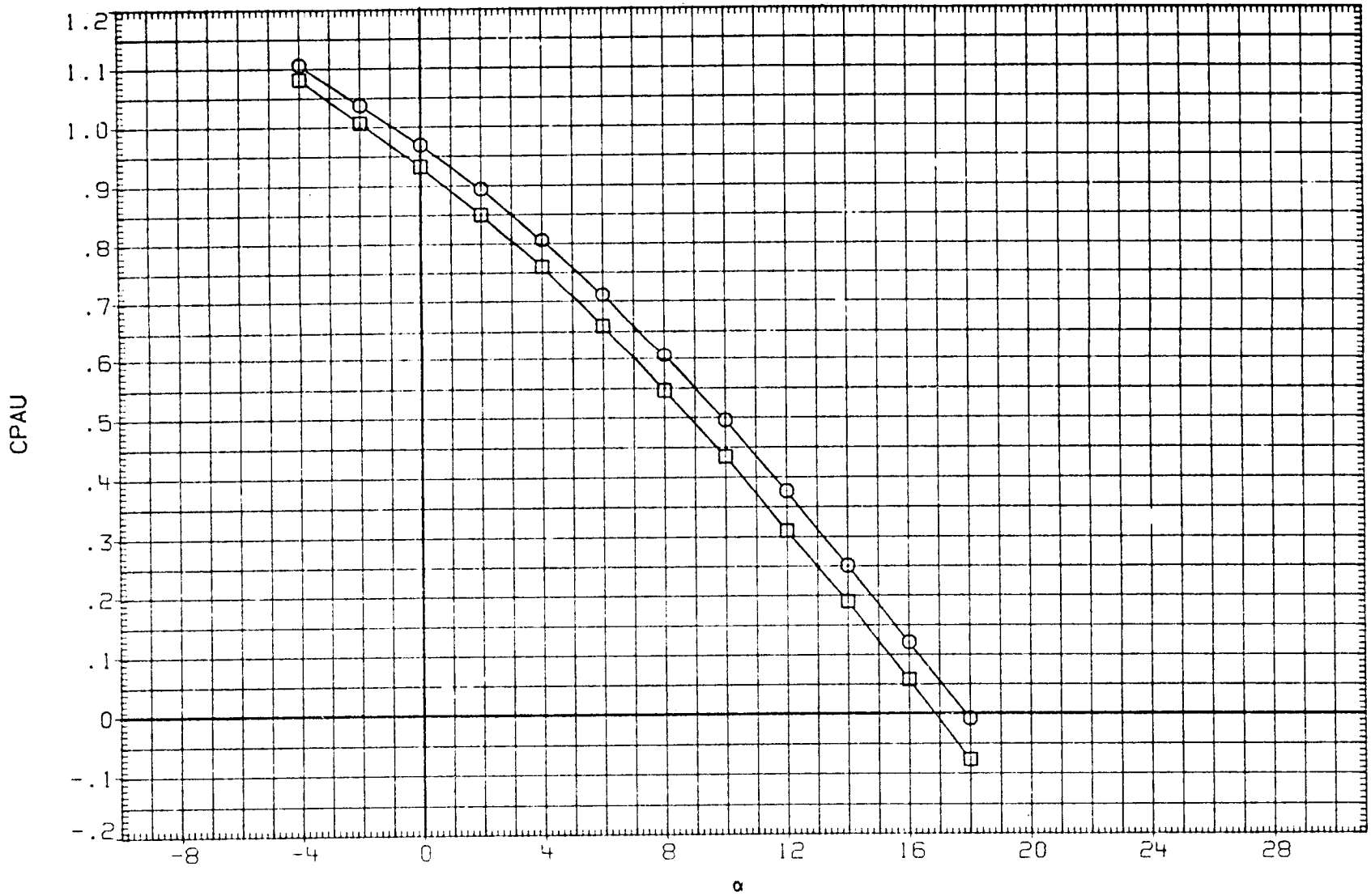


FIG. 39 0A232 SIDE PROBE CPAU VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON LEFT SIDE

(G)MACH = .85 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVR814	○	0A232	AEDC 16T TF431	LA .2A	RFN.IS	.000	.000
AVR815	□	0A232	AEDC 16T TF431	LA .2A	RFN.IS	2.000	.000

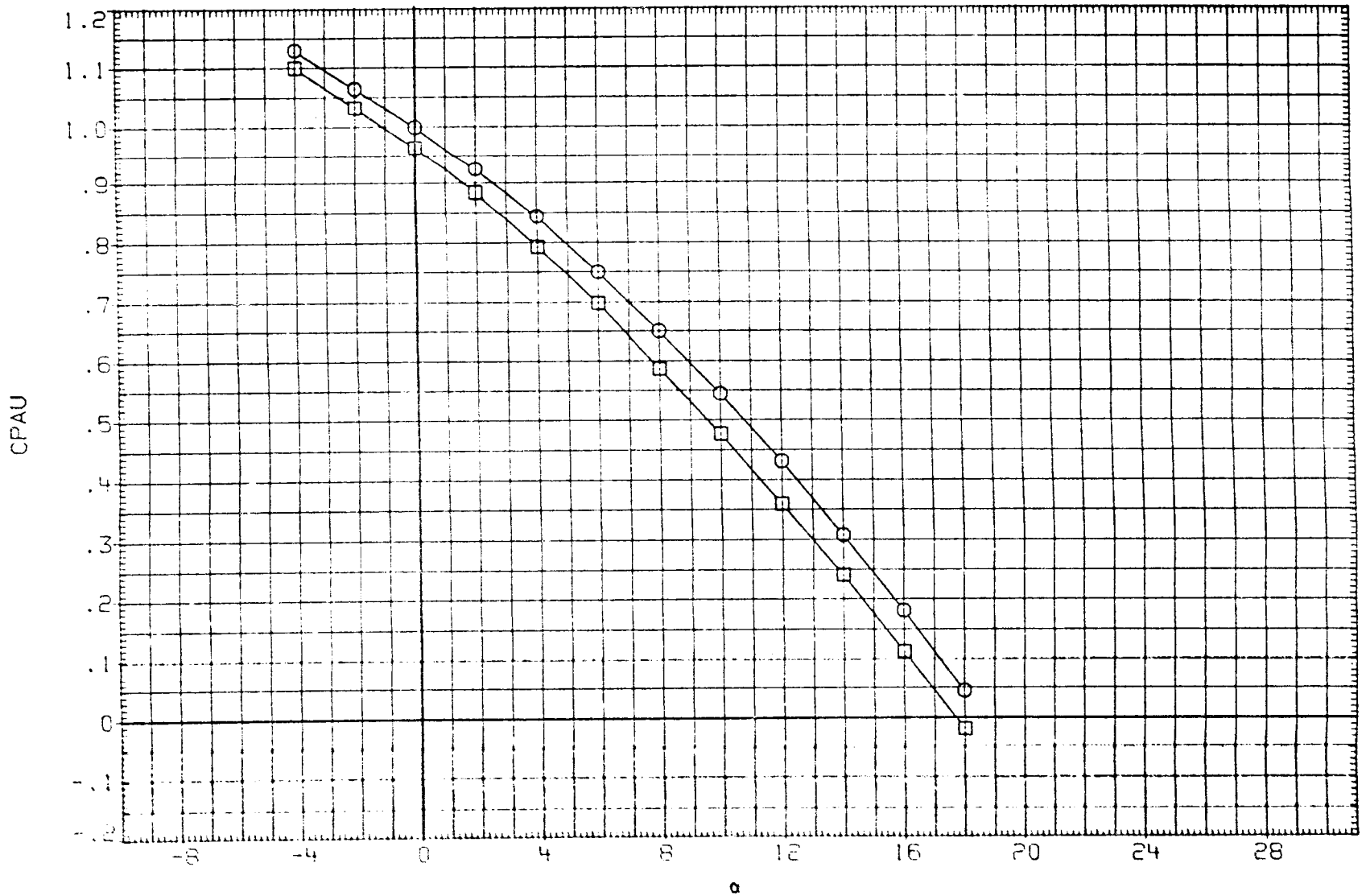


FIG. 39 0A232 SIDE PROBE CPAU VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON LEFT SIDE

(H)MACH = .90 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRB14	○	0A232	AEDC 16T TF431	LA .2A	RFN.1S	.000	.000
AVRB15	□	0A232	AEDC 16T TF431	LA .2A	RFN.1S	2.000	.000

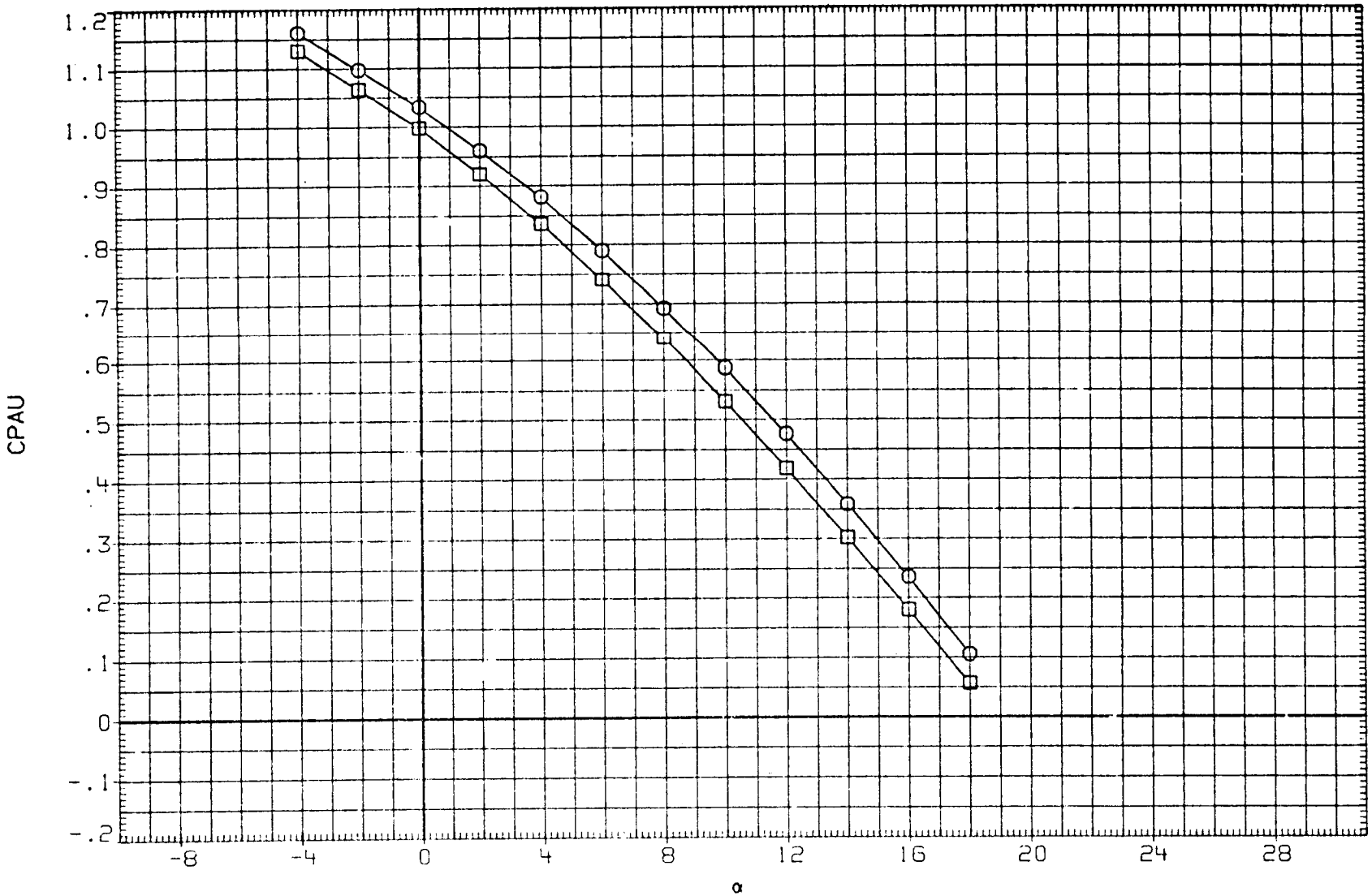


FIG. 39 0A232 SIDE PROBE CPAU VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON LEFT SIDE

(I) MACH = .95 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRB14	○	0A232	AEDC 16T TF431	LA .2A	RFN.1S	.000	.000
AVRB15	□	0A232	AEDC 16T TF431	LA .2A	RFN.1S	2.000	.000

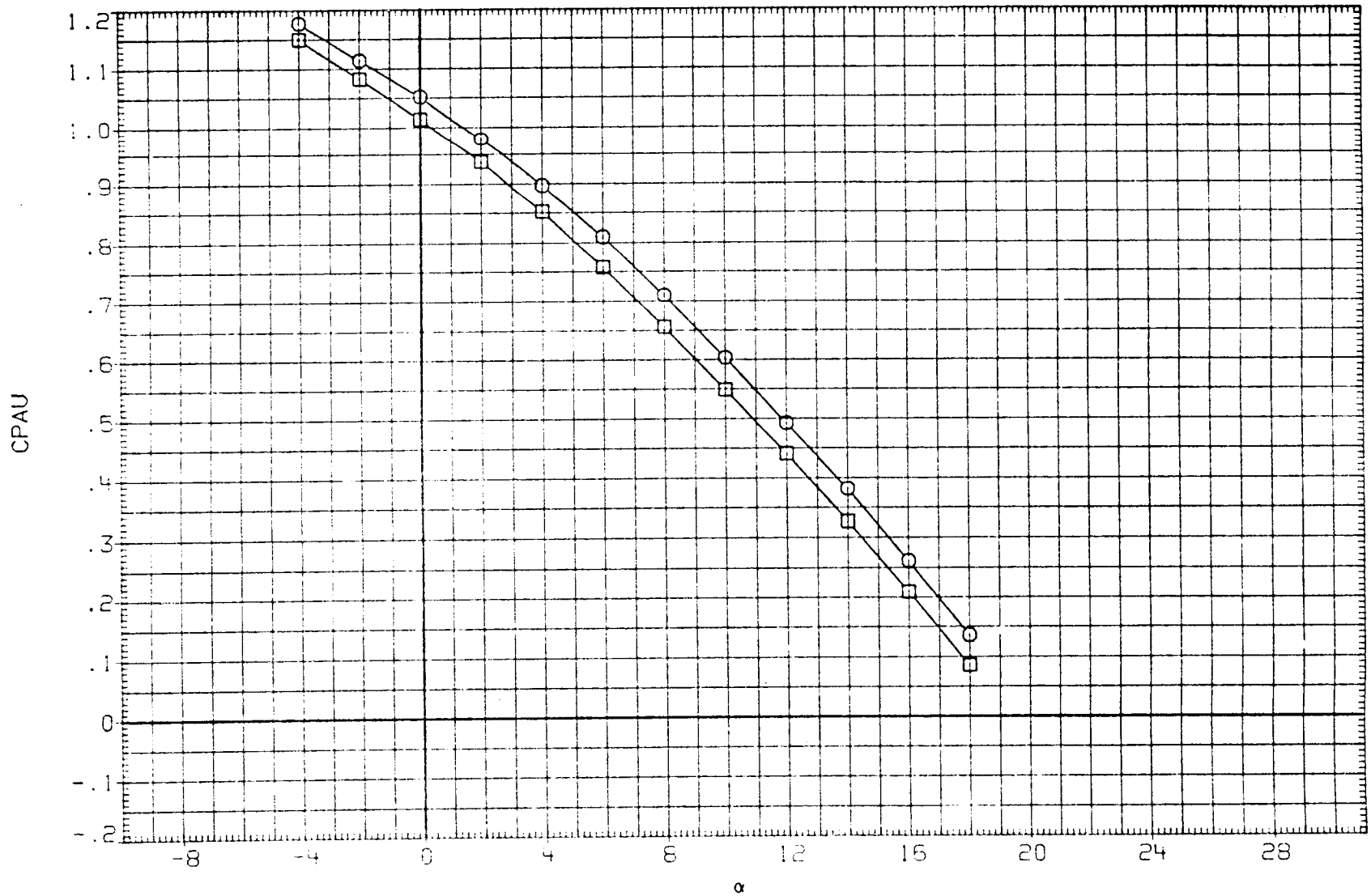


FIG. 39 0A232 SIDE PROBE CPAU VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON LEFT SIDE

(J)MACH = .98 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION			BETA	PHI
AVRB14	○	0A232	AEDC 16T TF431 LA .2A	RFN.1S	.000	.000
AVRB15	□	0A232	AEDC 16T TF431 LA .2A	RFN.1S	2.000	.000

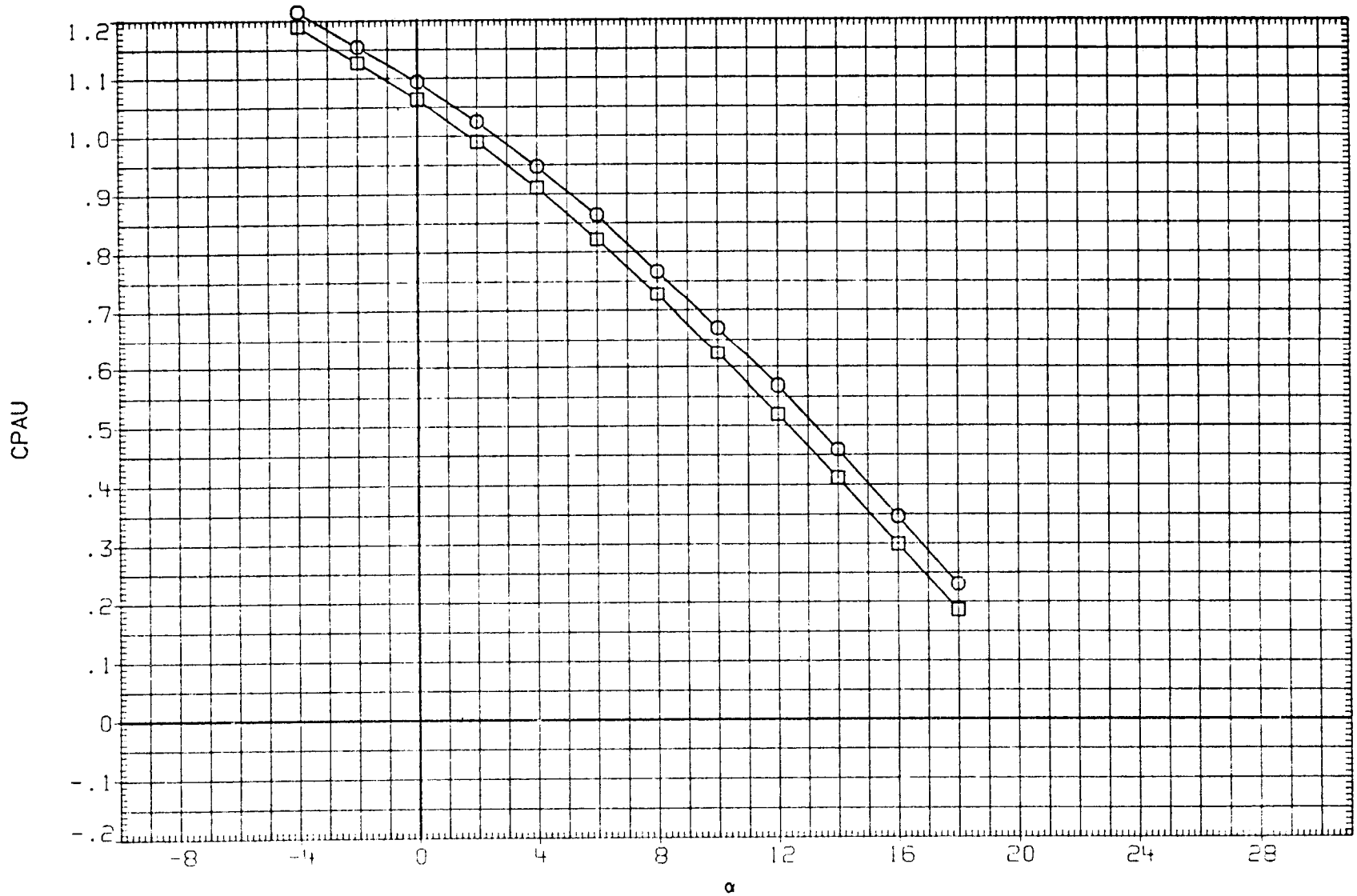


FIG. 39 0A232 SIDE PROBE CPAU VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON LEFT SIDE

(K)MACH = 1.05 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRB14	○	0A232	AEDC 16T TF431	LA .2A	REFN.1S	.000	.000
AVRB15	□	0A232	AEDC 16T TF431	LA .2A	REFN.1S	2.000	.000

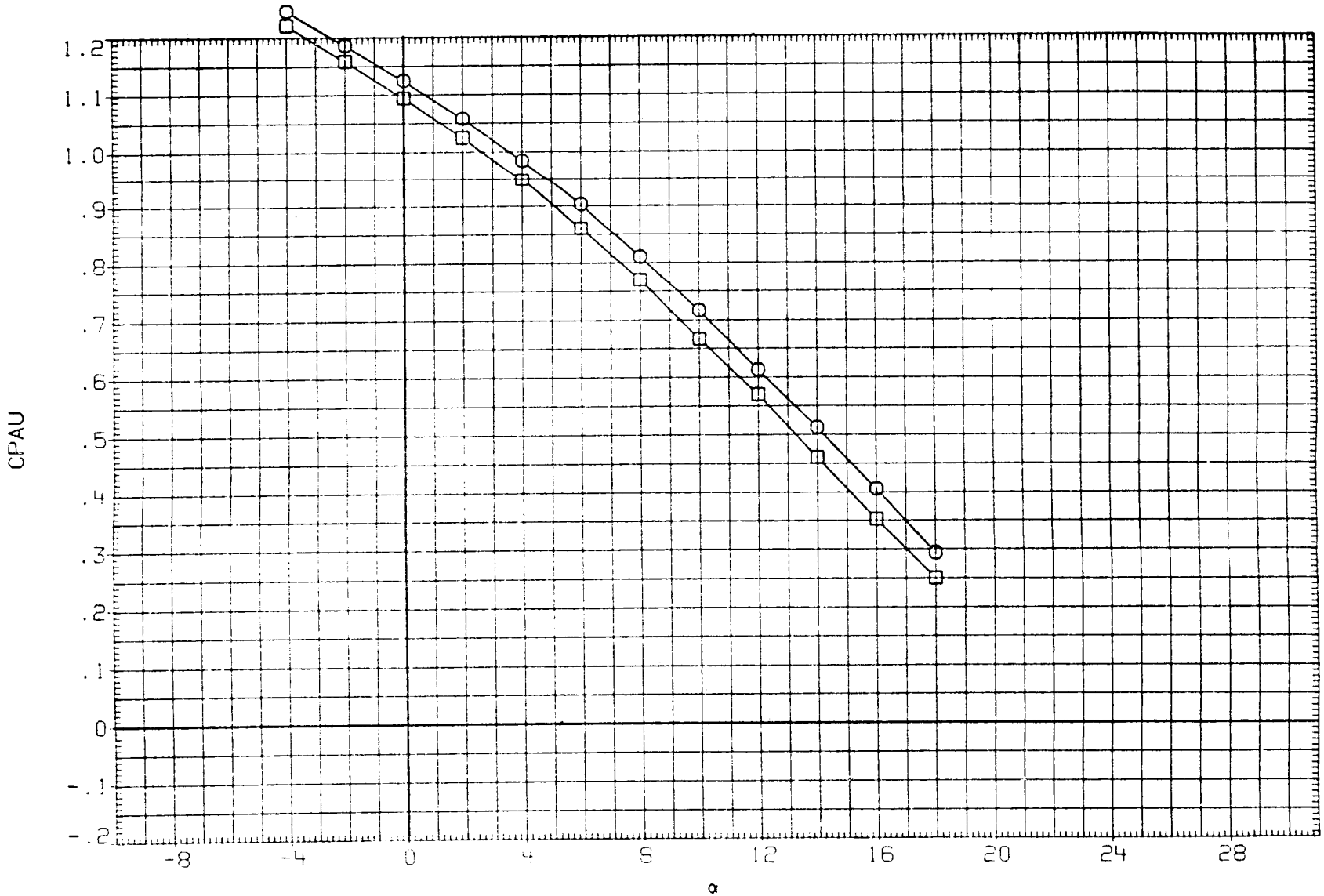


FIG. 39 0A232 SIDE PROBE CPAU VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON LEFT SIDE

(L)MACH = 1.10 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRB14	○	0A232	AEDC 16T TF431	LA .2A	RFN.15	.000	.000
AVRB15	□	0A232	AEDC 16T TF431	LA .2A	RFN.15	2.000	.000

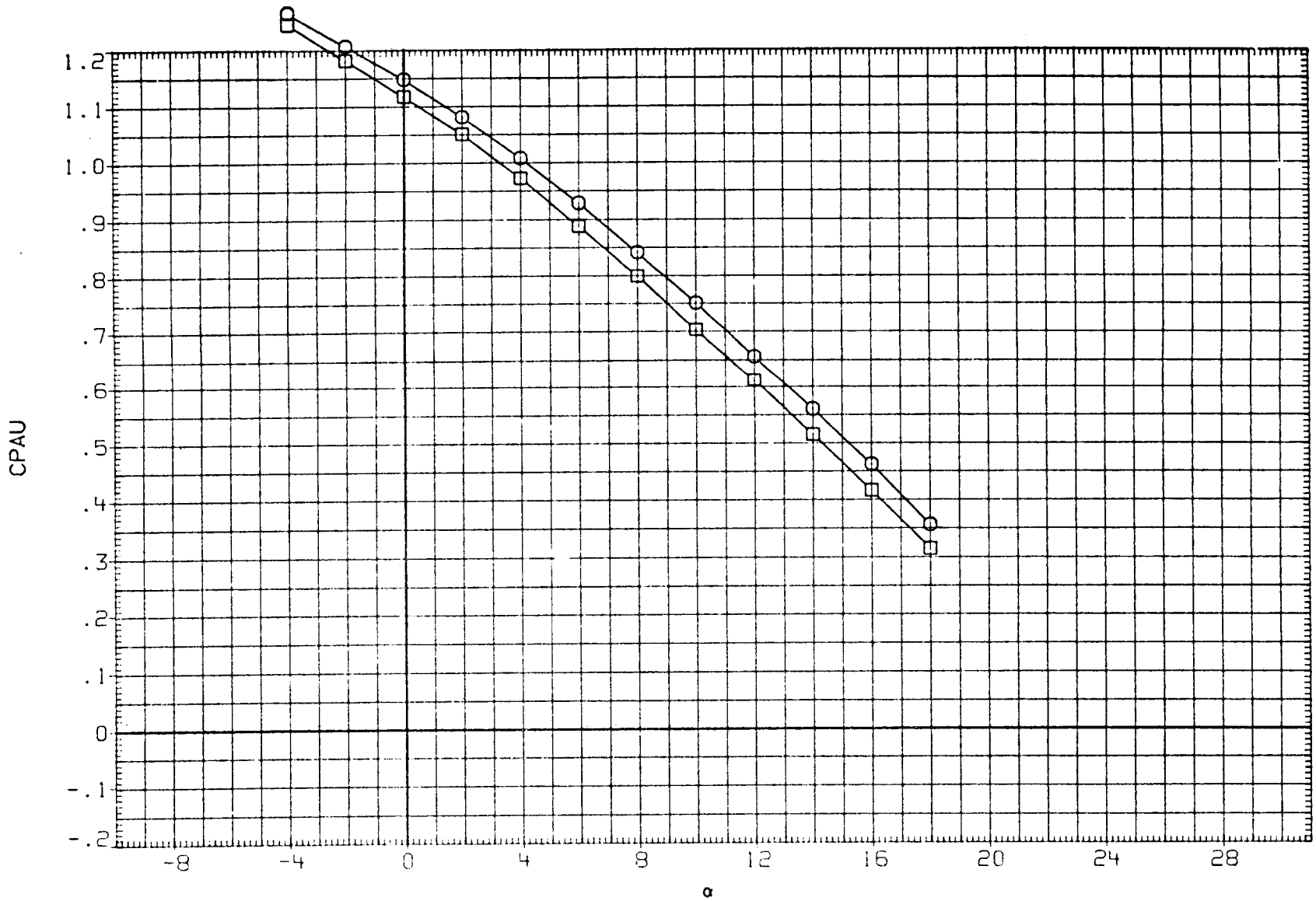


FIG. 39 0A232 SIDE PROBE CPAU VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON LEFT SIDE

(M)MACH = 1.15 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRB14	○	0A232	AEDC 16T TF431	LA .2A	RFN.1S	.000	.000
AVRB15	□	0A232	AEDC 16T TF431	LA .2A	RFN.1S	2.000	.000

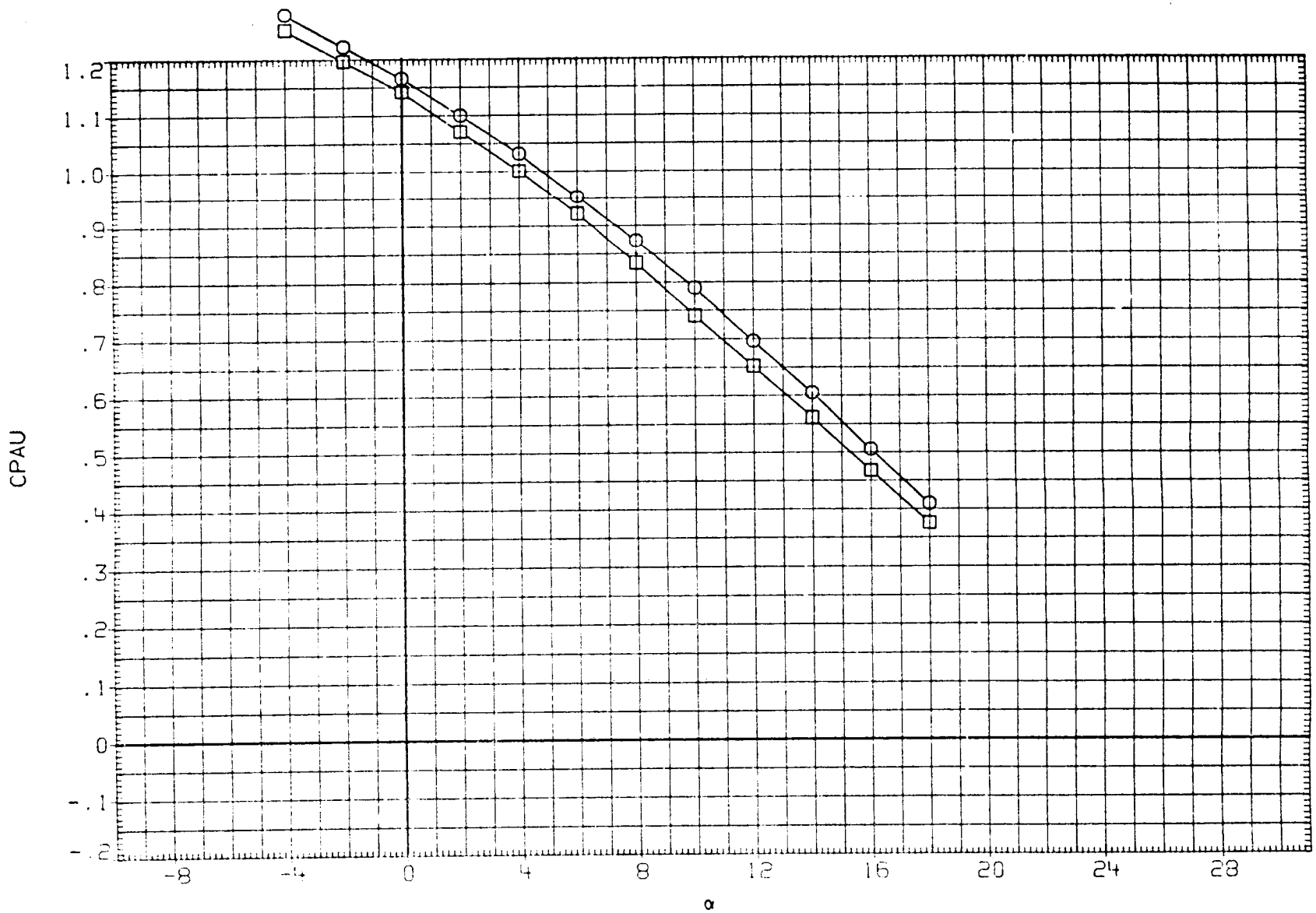


FIG. 39 0A232 SIDE PROBE CPAU VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON LEFT SIDE

(N) MACH = 1.20 DATE 09 AUG 78

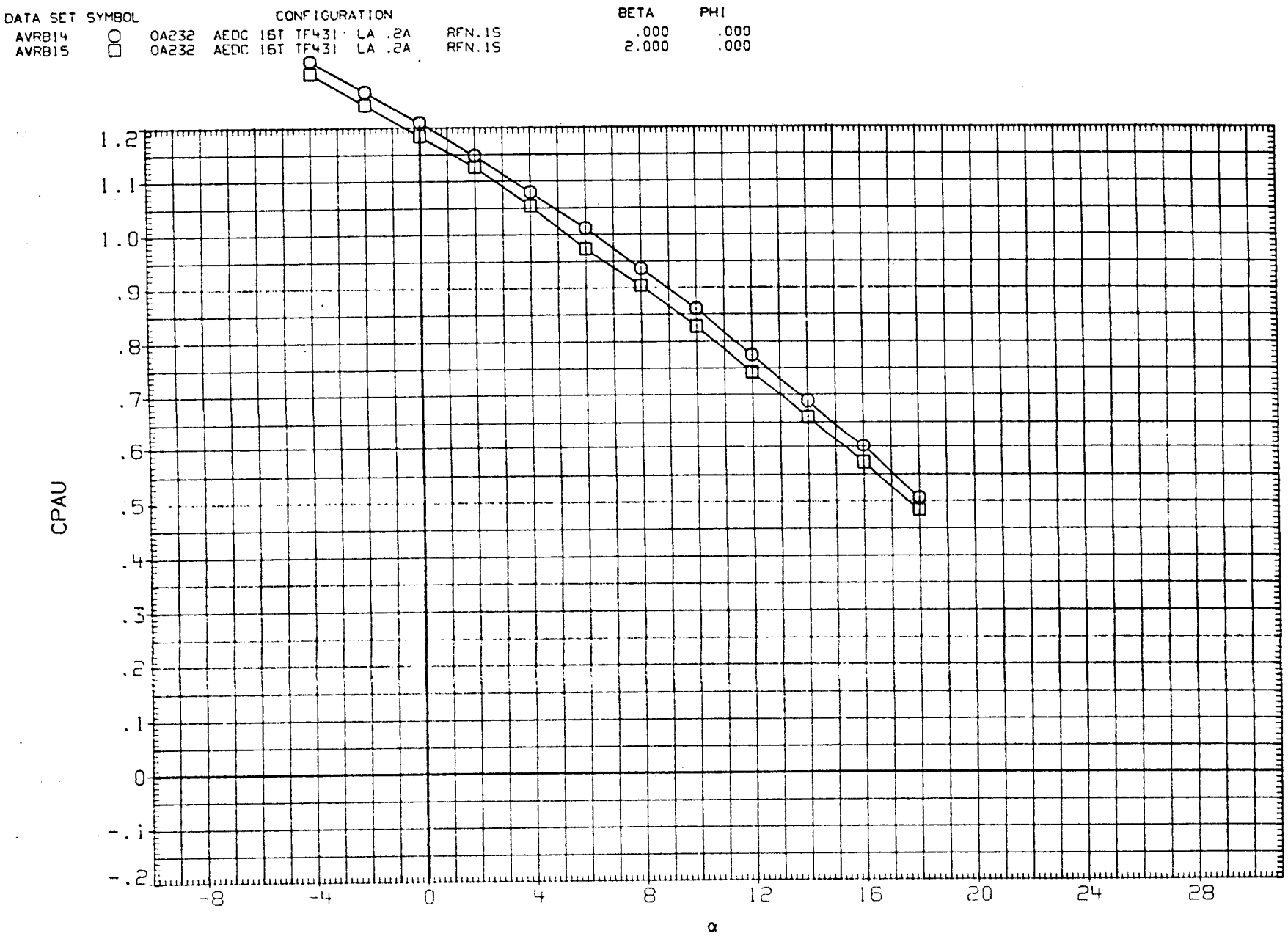


FIG. 39 OA232 SIDE PROBE CPAU VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON LEFT SIDE

(O)MACH = 1.30 DATE 09 AUG 78

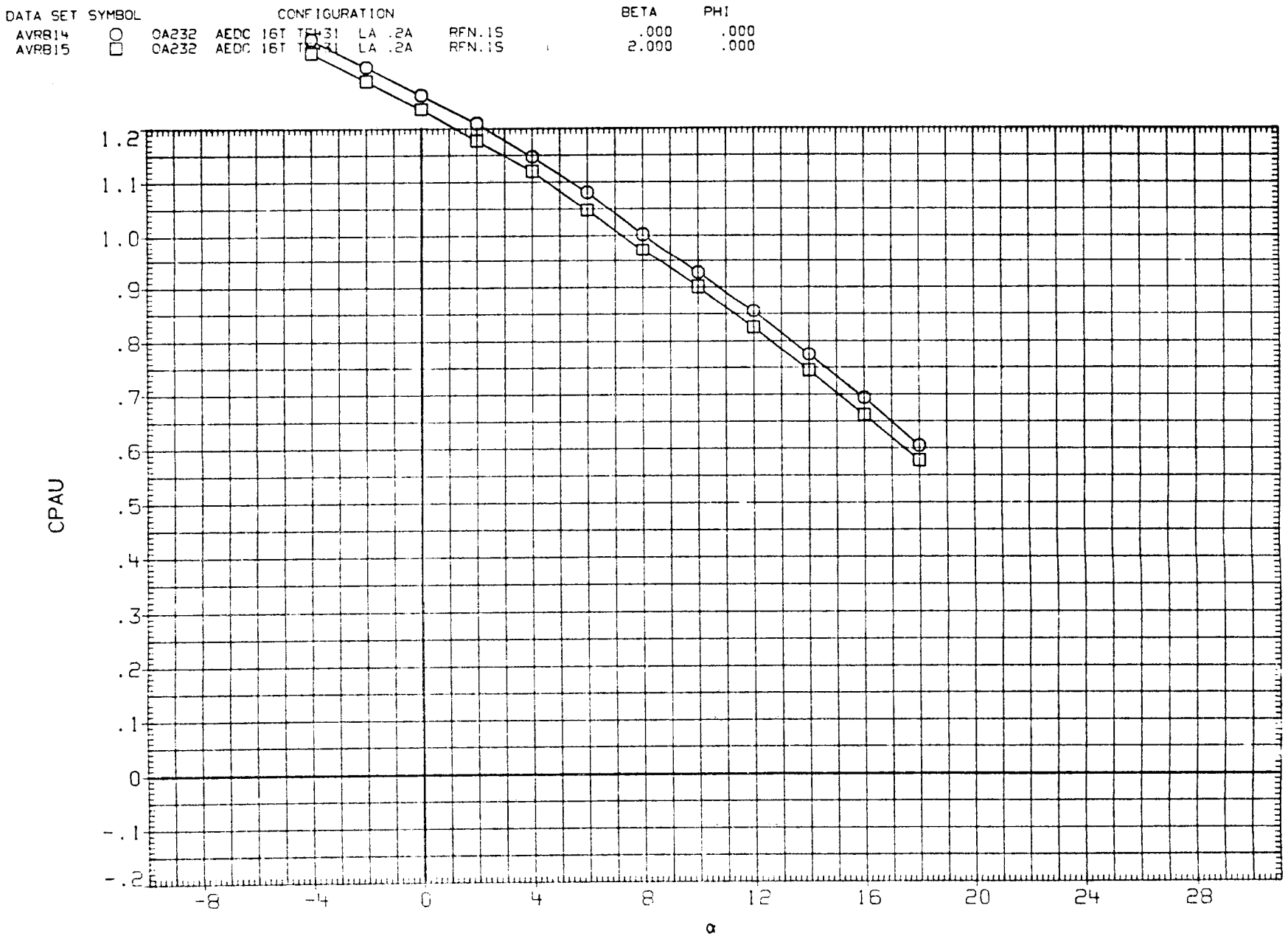


FIG. 39 OA232 SIDE PROBE CPAU VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON LEFT SIDE

(P)MACH = 1.40 DATE 09 AUG 78

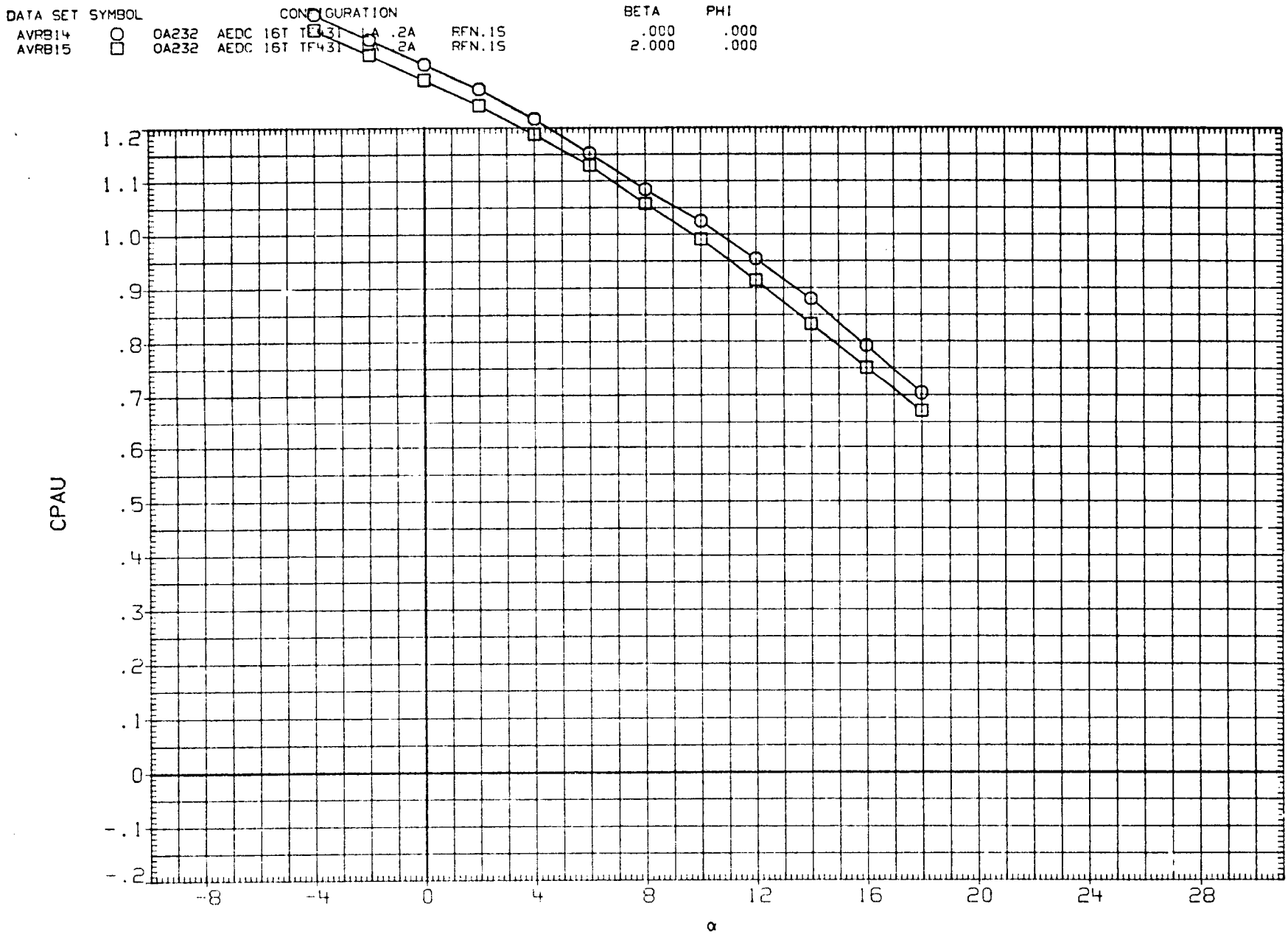


FIG. 39 0A232 SIDE PROBE CPAU VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON LEFT SIDE

(Q) MACH = 1.55 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB12	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

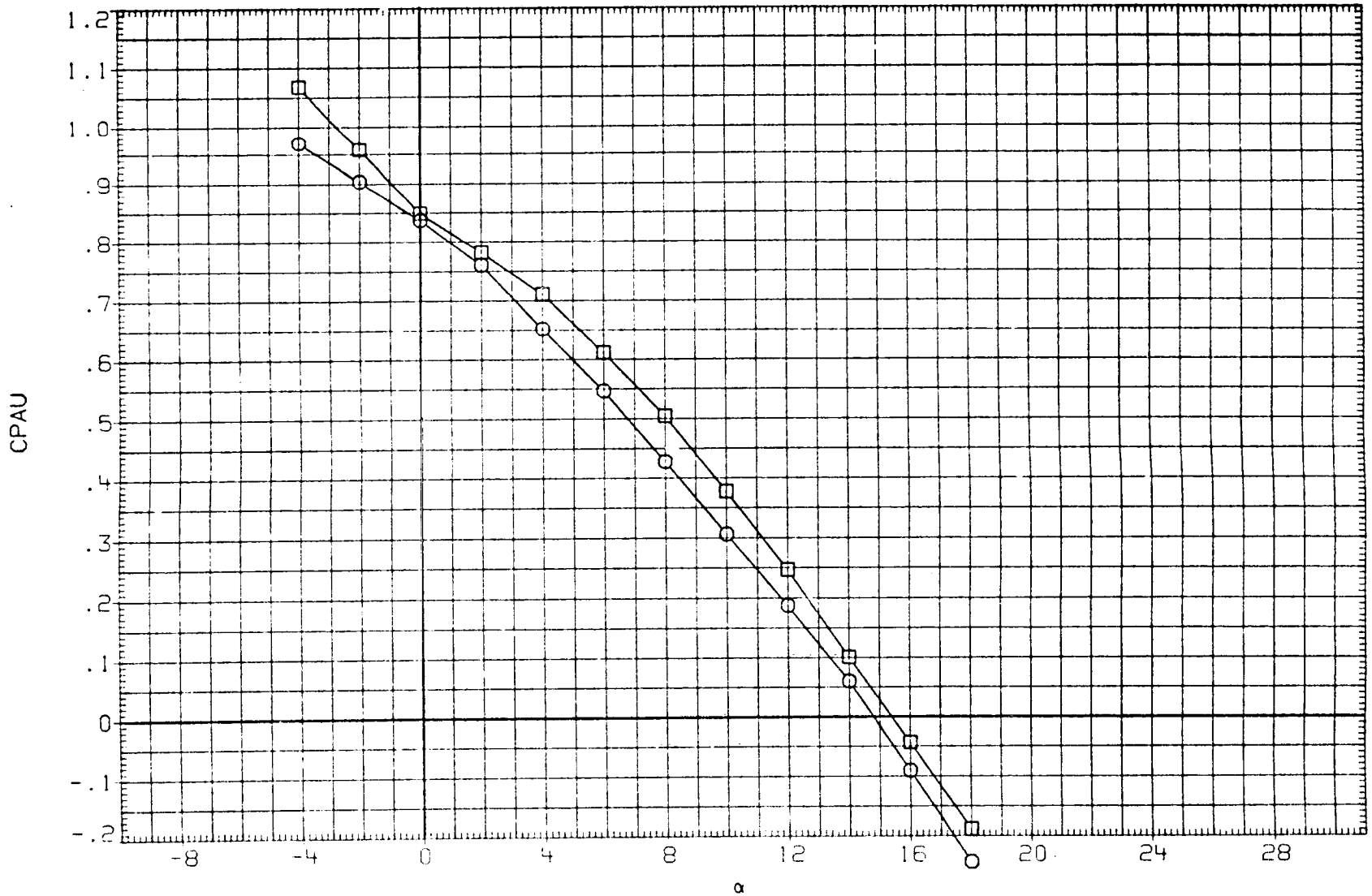


FIG. 40 0A232 SIDE PROBE CPAU VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE

(A)MACH = .20 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB12	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

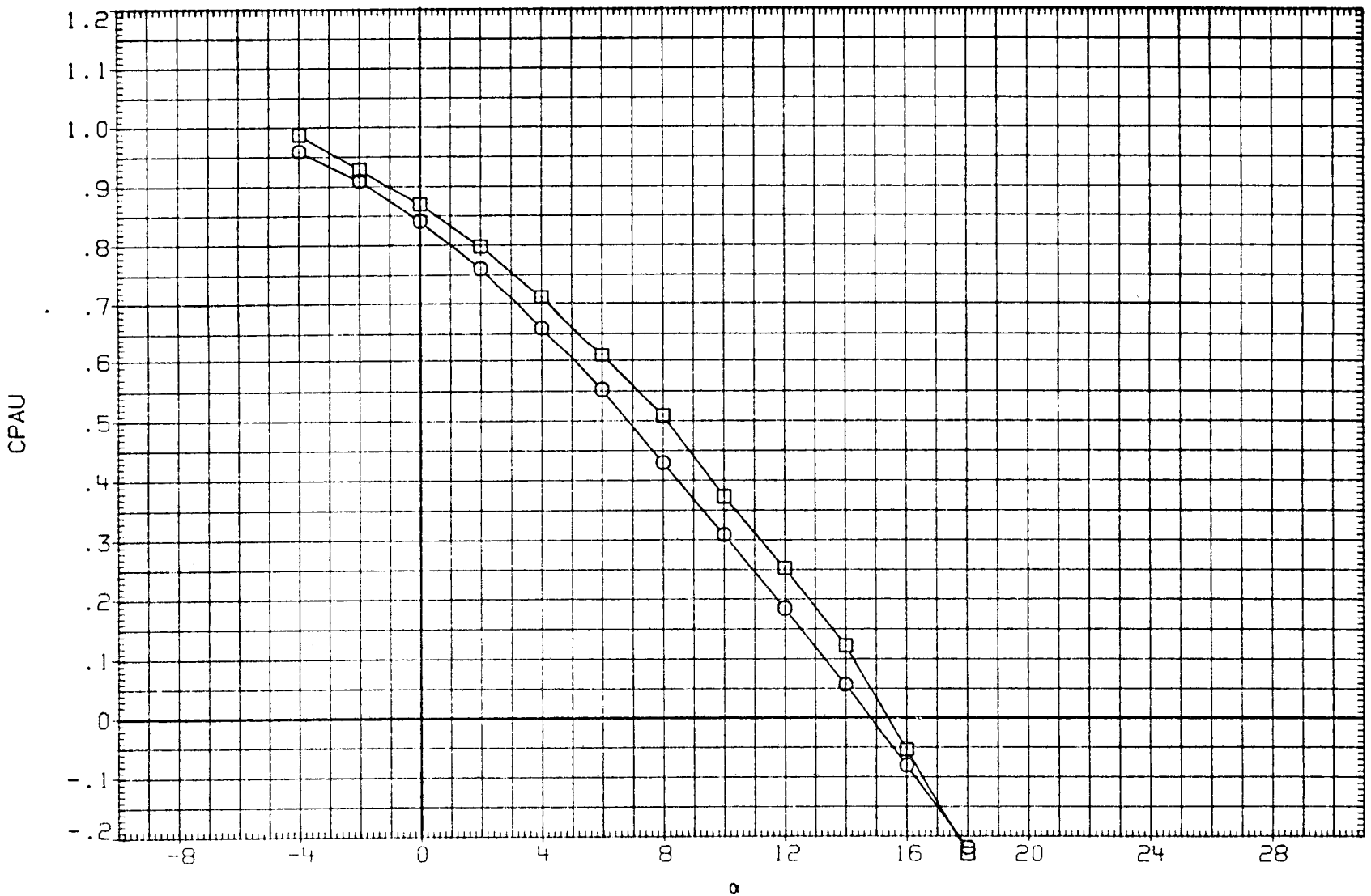


FIG. 40 0A232 SIDE PROBE CPAU VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE

(B)MACH = .25 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB12	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

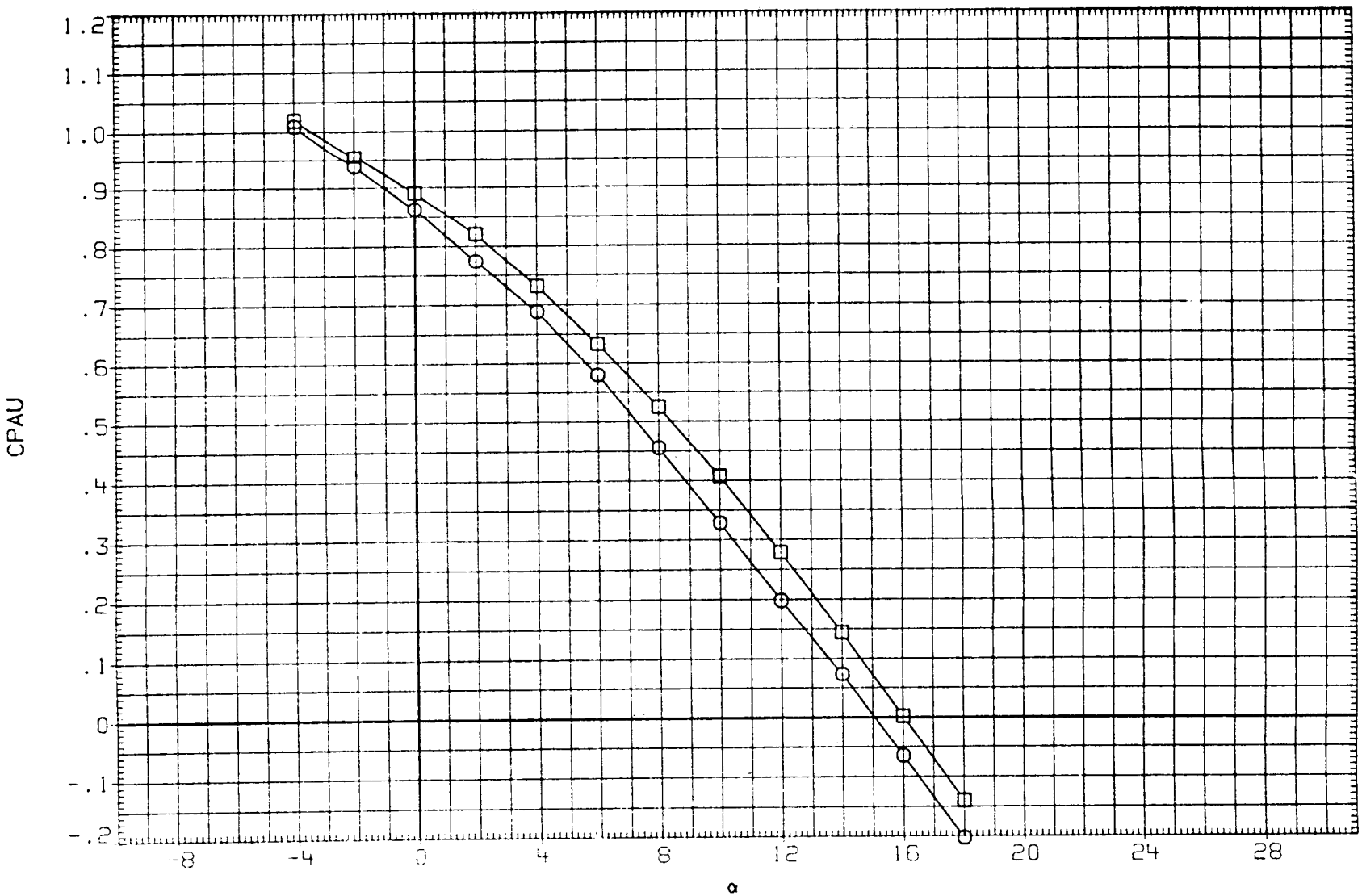


FIG. 40 0A232 SIDE PROBE CPAU VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE

(C)MACH = .40 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB12	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

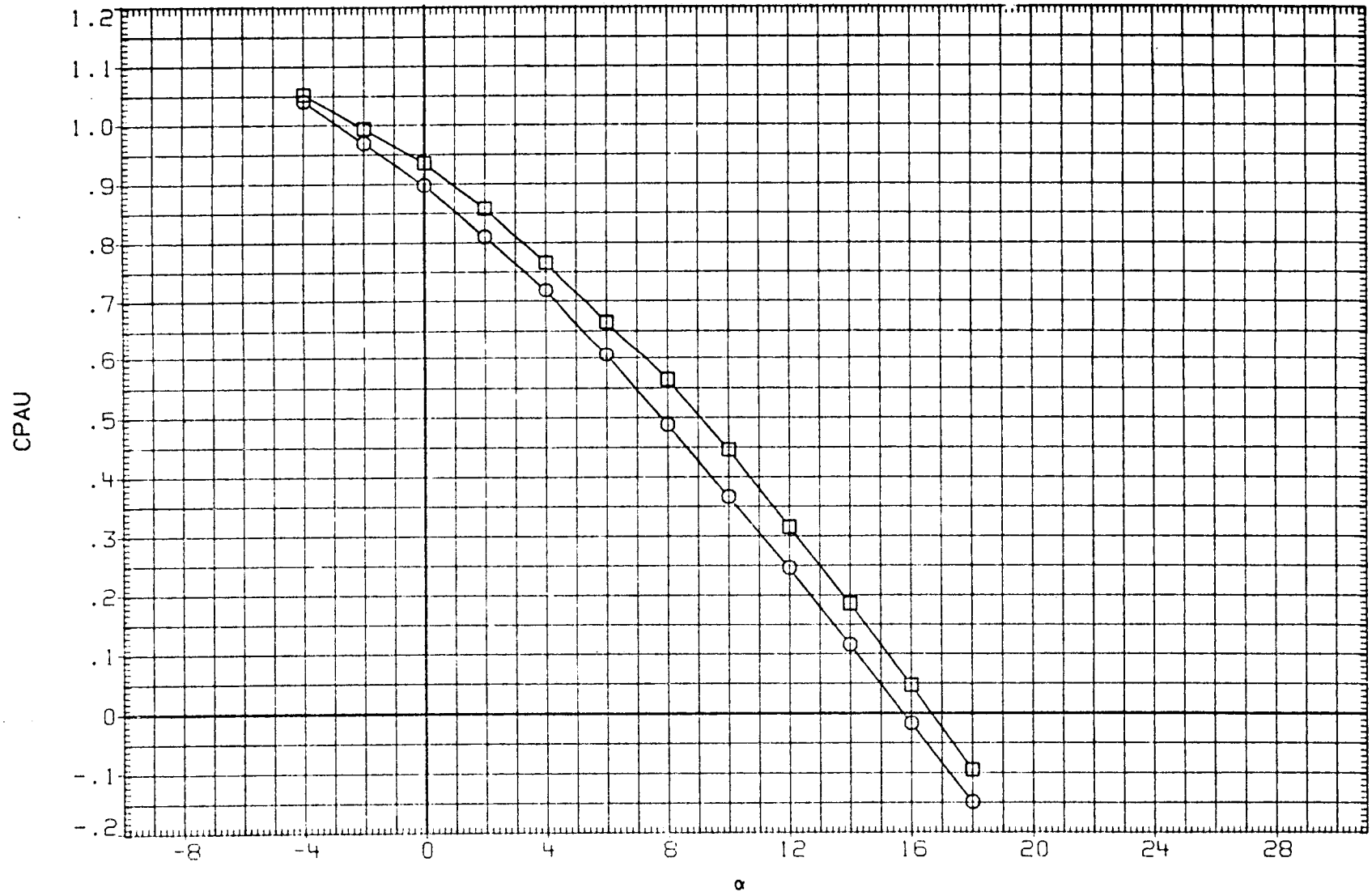


FIG. 40 0A232 SIDE PROBE CPAU VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE

(D)MACH = .60 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB12	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

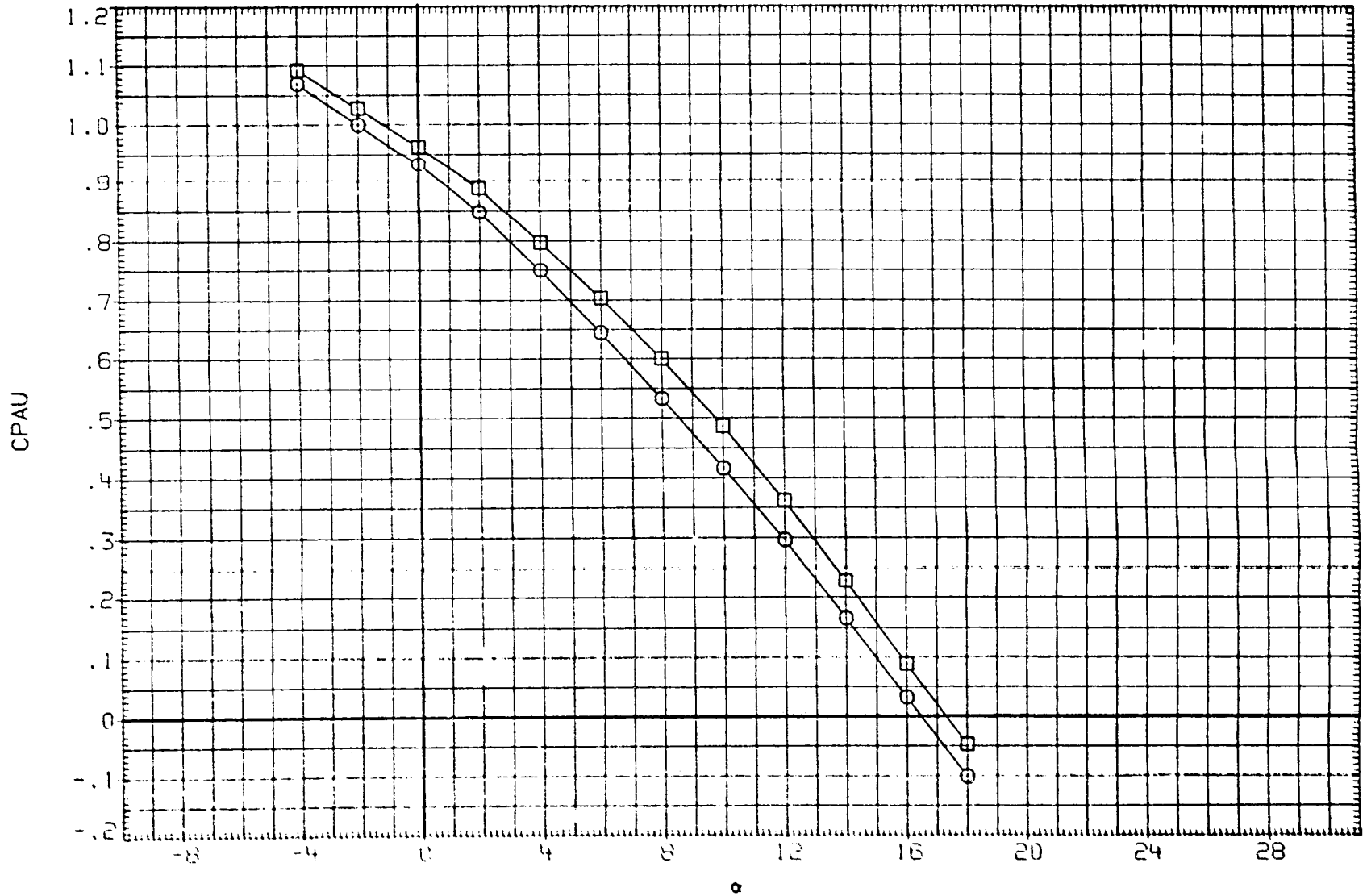


FIG. 40 0A232 SIDE PROBE CPAU VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON RIGHT SIDE

(E)MACH = .70 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB12	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

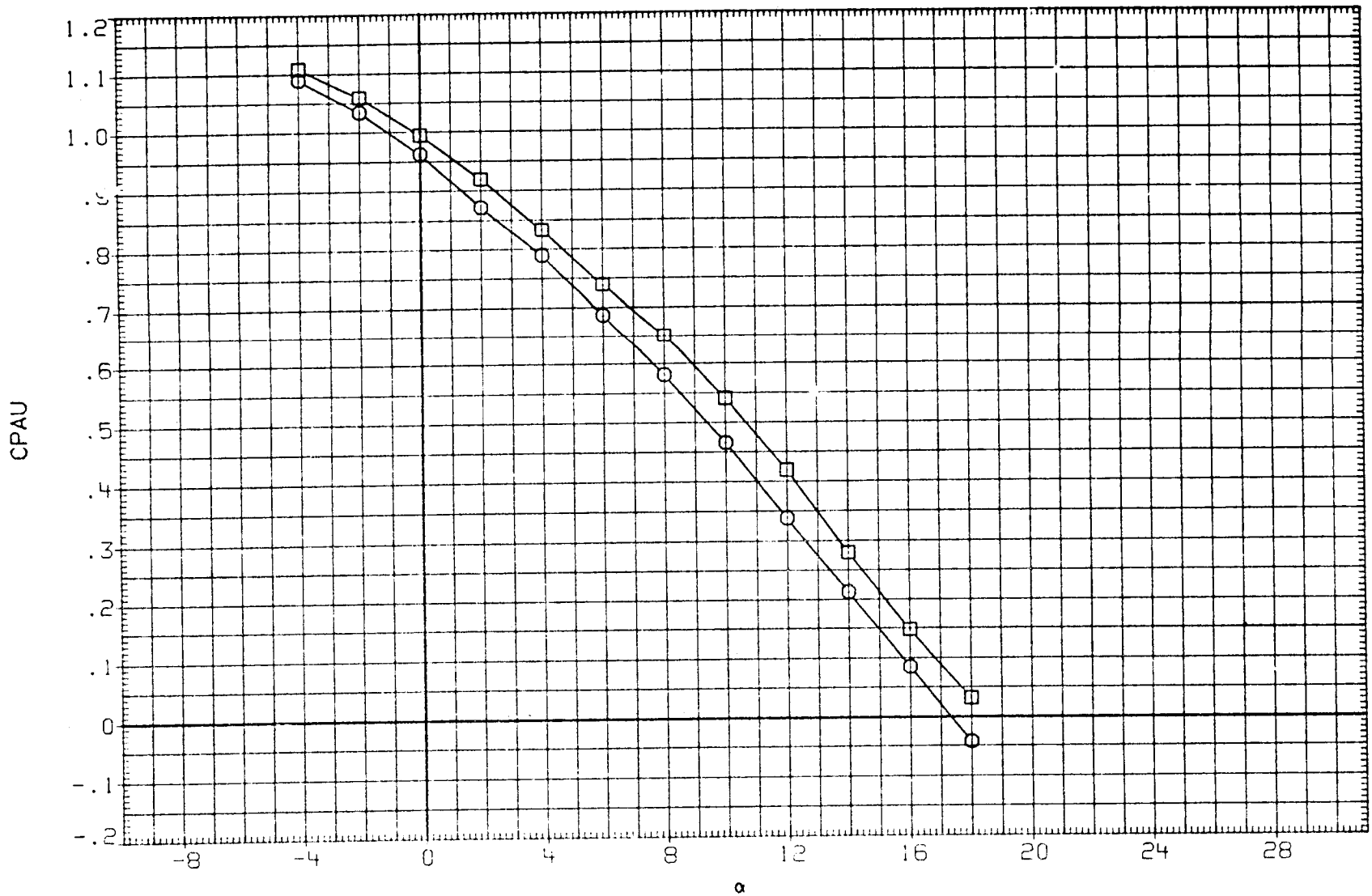


FIG. 40 0A232 SIDE PROBE CPAU VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE

(F)MACH = .80 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB12	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

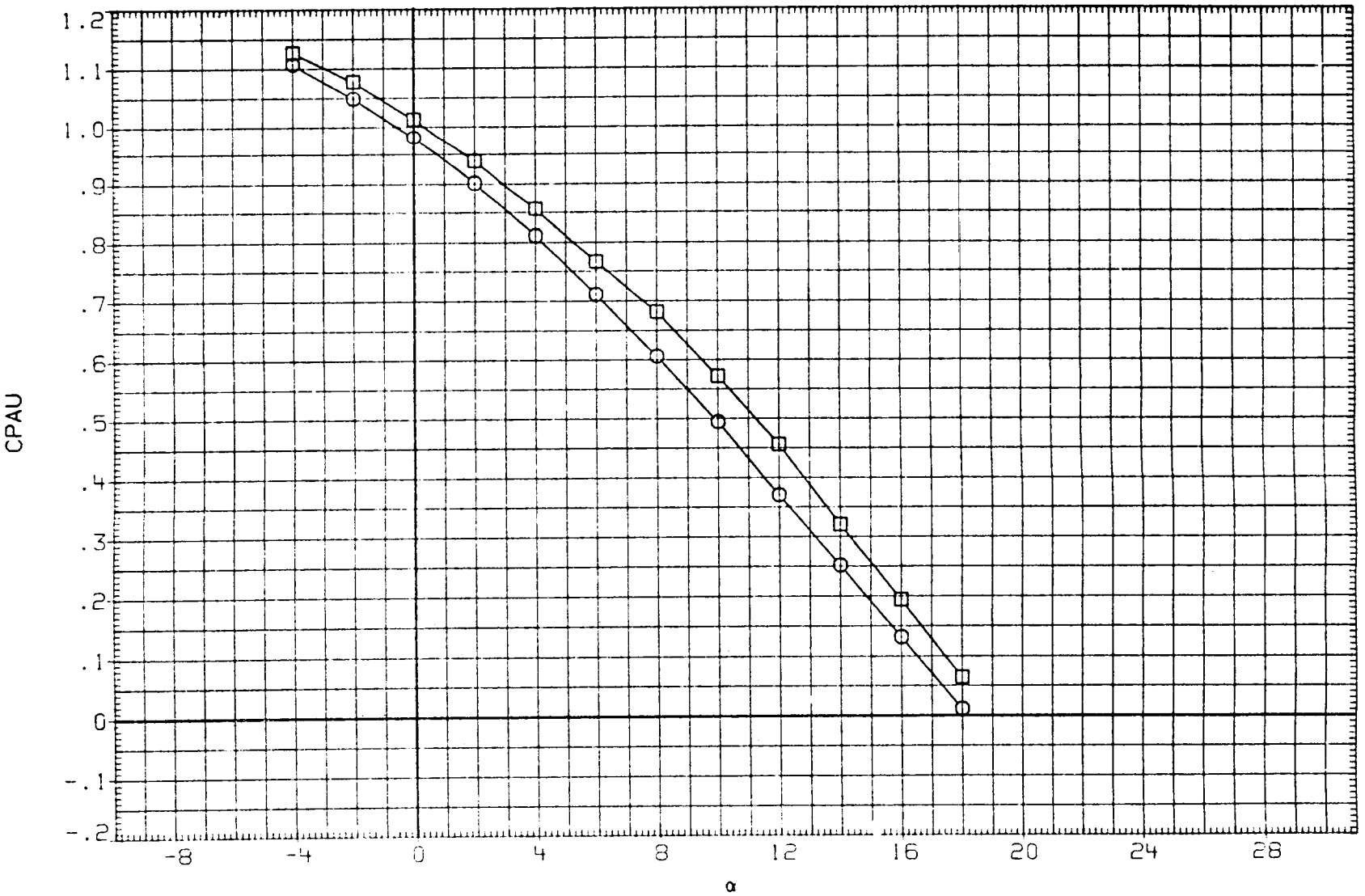


FIG. 40 0A232 SIDE PROBE CPAU VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE

(G)MACH = .85 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB12	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

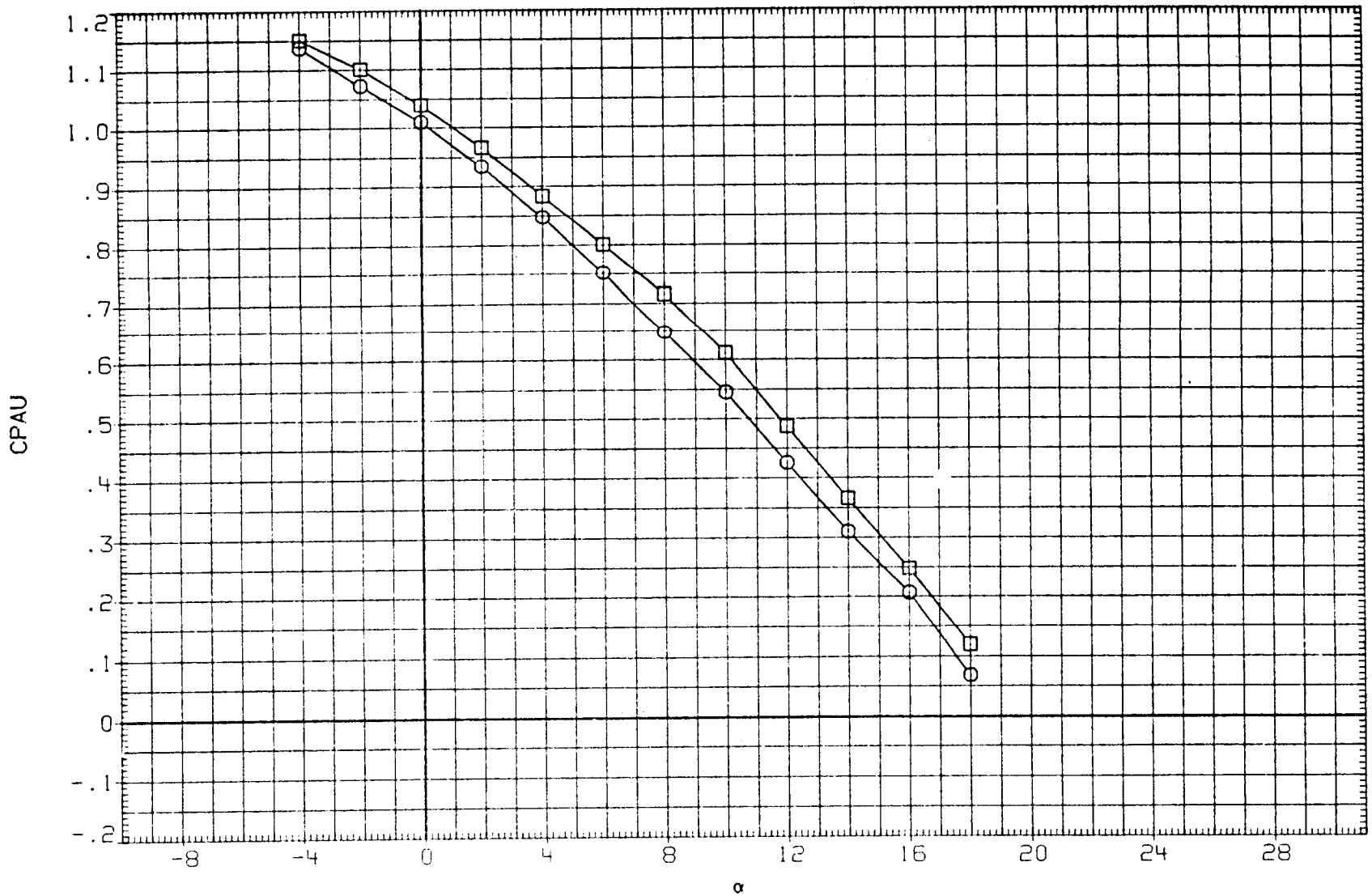


FIG. 40 0A232 SIDE PROBE CPAU VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE

(H)MACH = .90 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB12	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

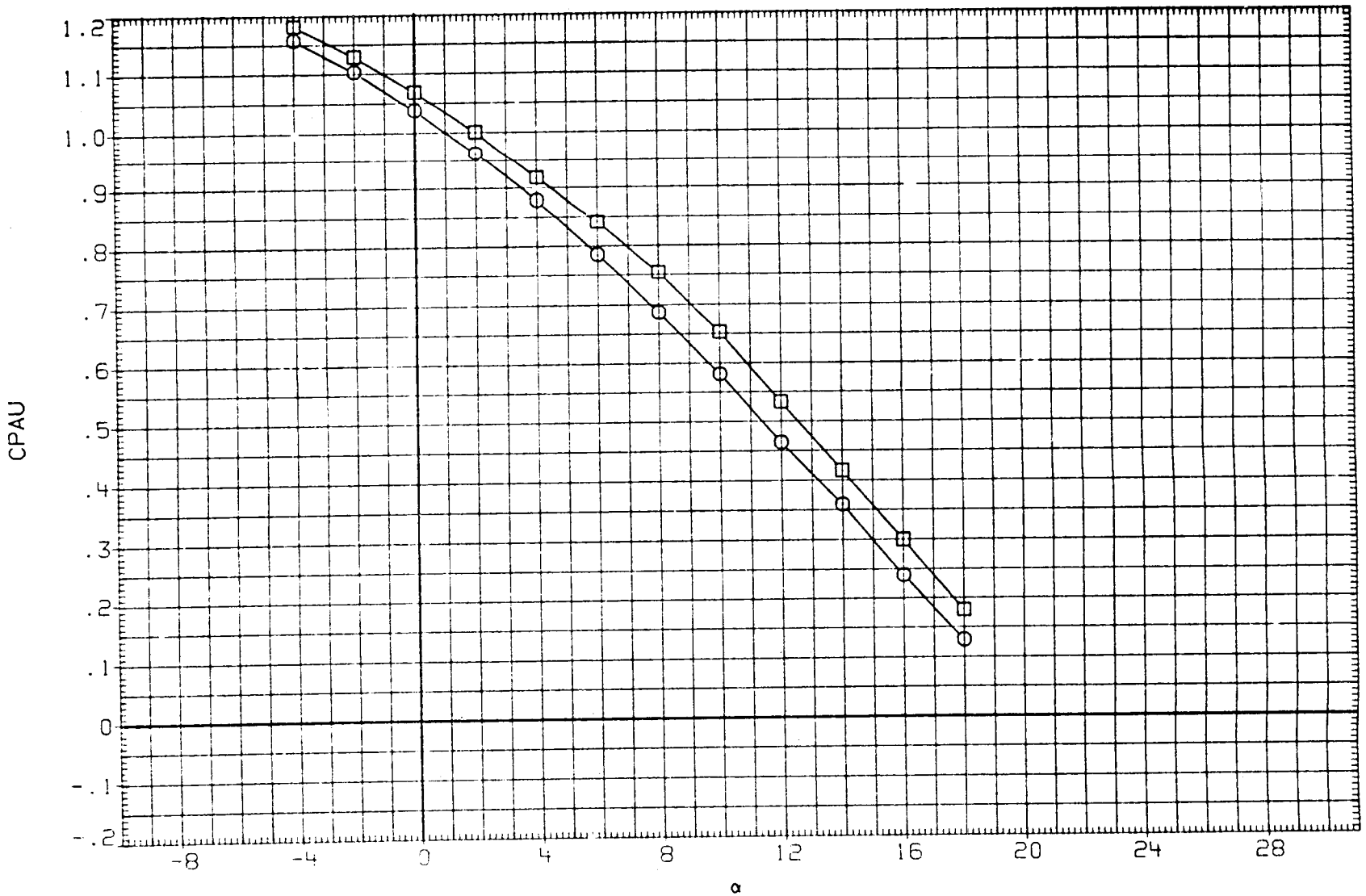


FIG. 40 0A232 SIDE PROBE CPAU VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE

(I)MACH = .95 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB12	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

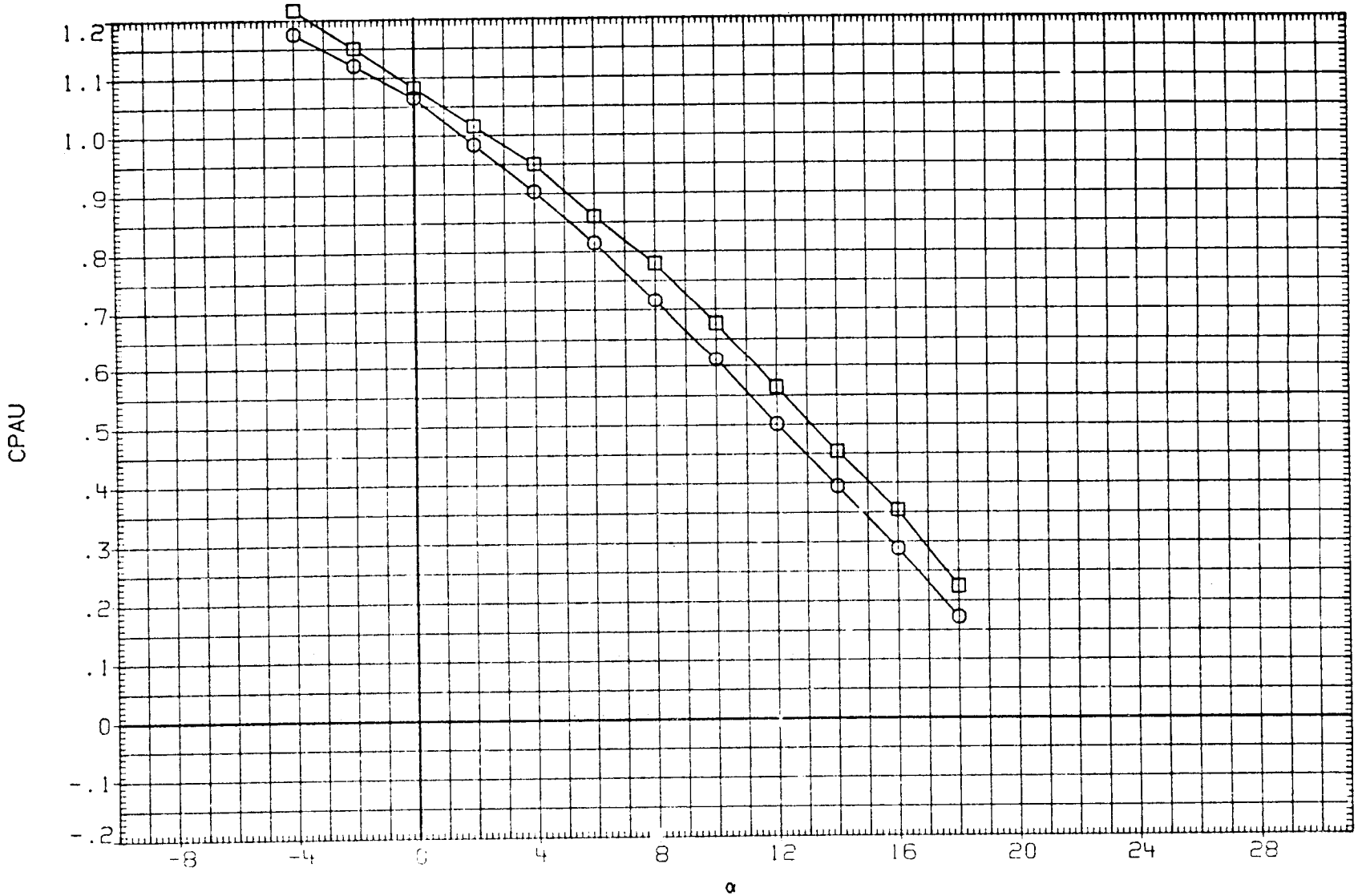


FIG. 40 0A232 SIDE PROBE CPAU VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON RIGHT SIDE

(J) MACH = .98 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB12	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

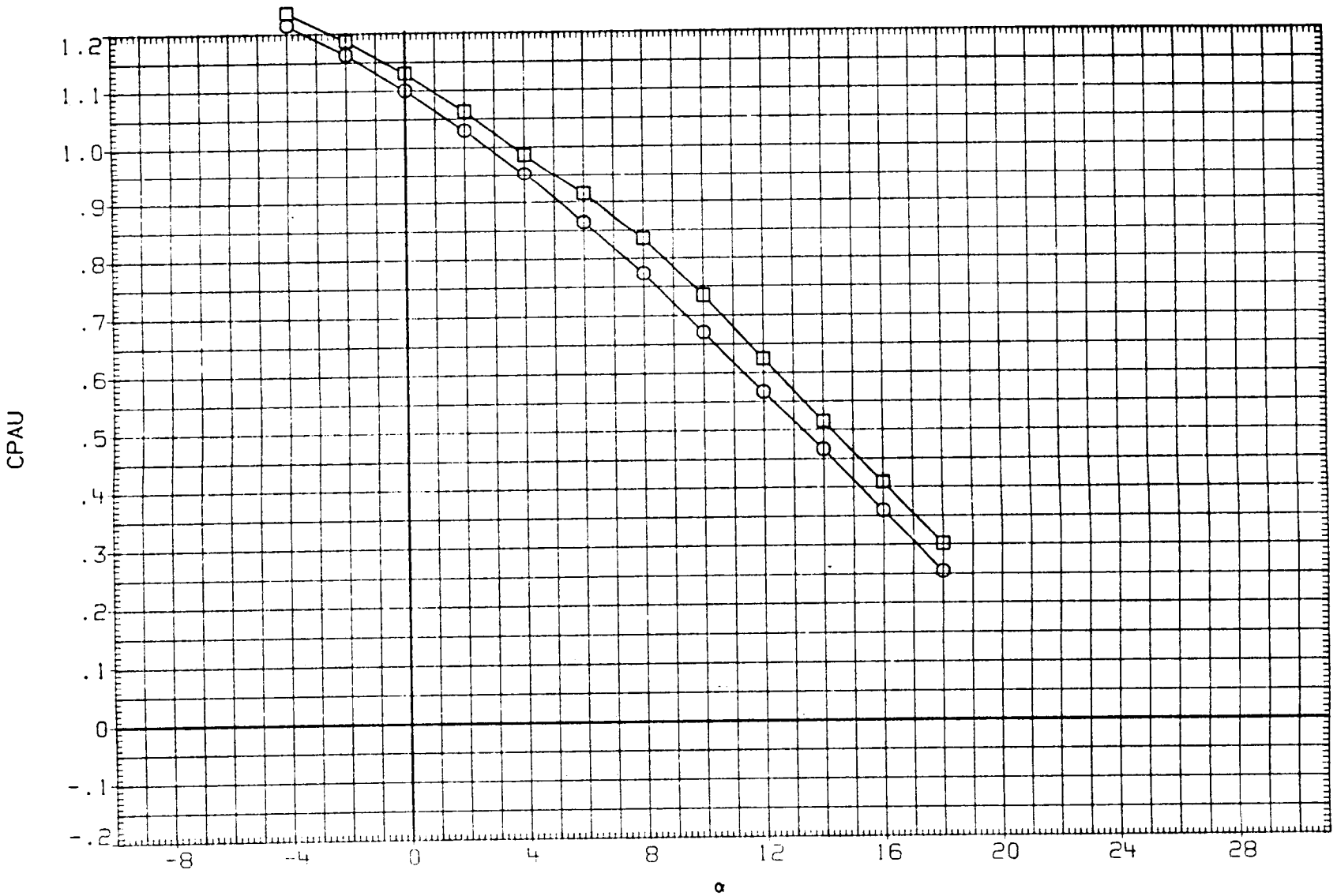


FIG. 40 0A232 SIDE PROBE CPAU VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON RIGHT SIDE

(K)MACH = 1.05 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVR811	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVR812	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

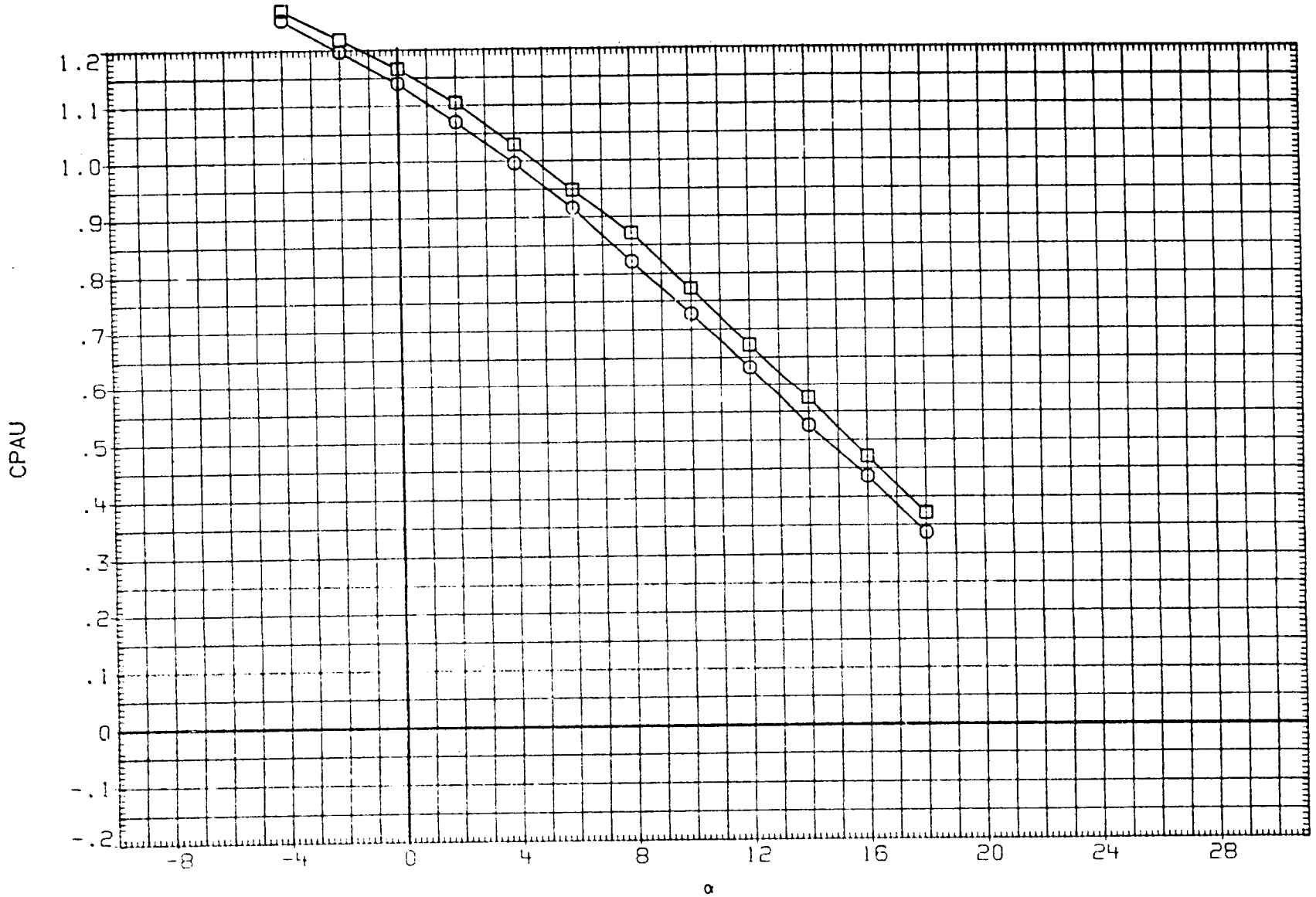


FIG. 40 0A232 SIDE PROBE CPAU VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE

(L)MACH = 1.10 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB12	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

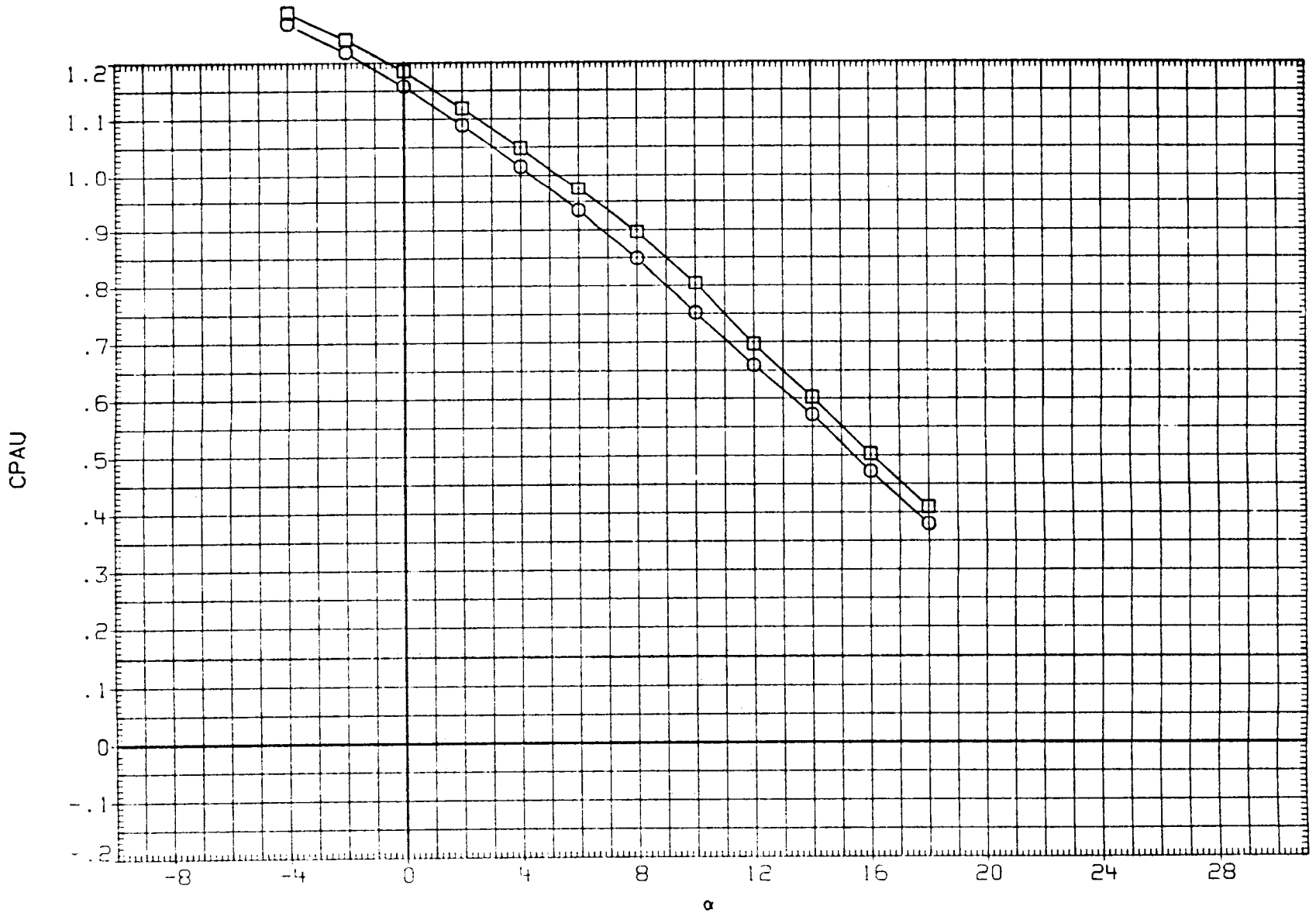


FIG. 40 0A232 SIDE PROBE CPAU VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE

(M)MACH = 1.15 DATE 09 AUG 78

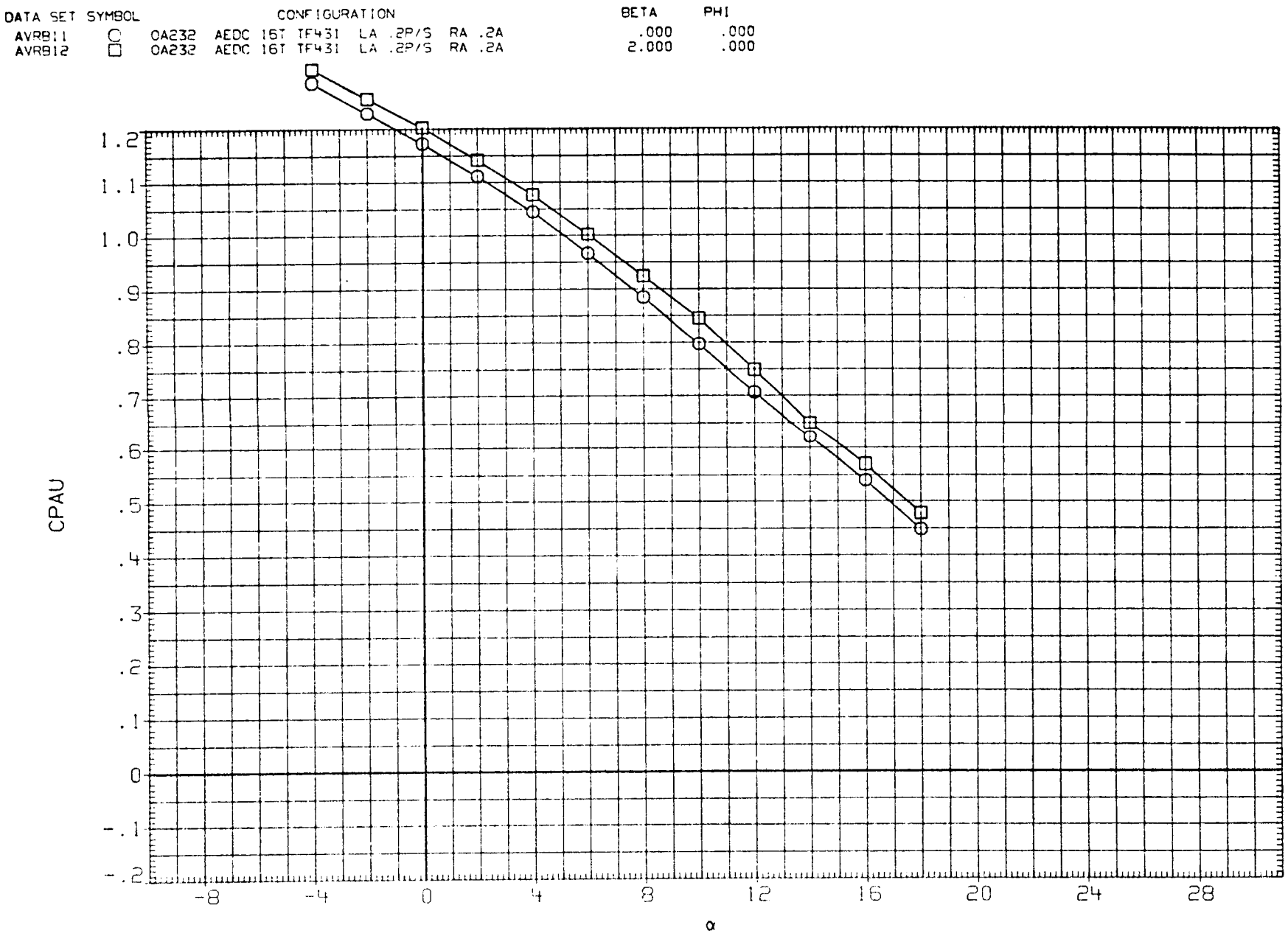


FIG. 40 OA232 SIDE PROBE CPAU VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON RIGHT SIDE

(N) MACH = 1.20 DATE 09 AUG 73

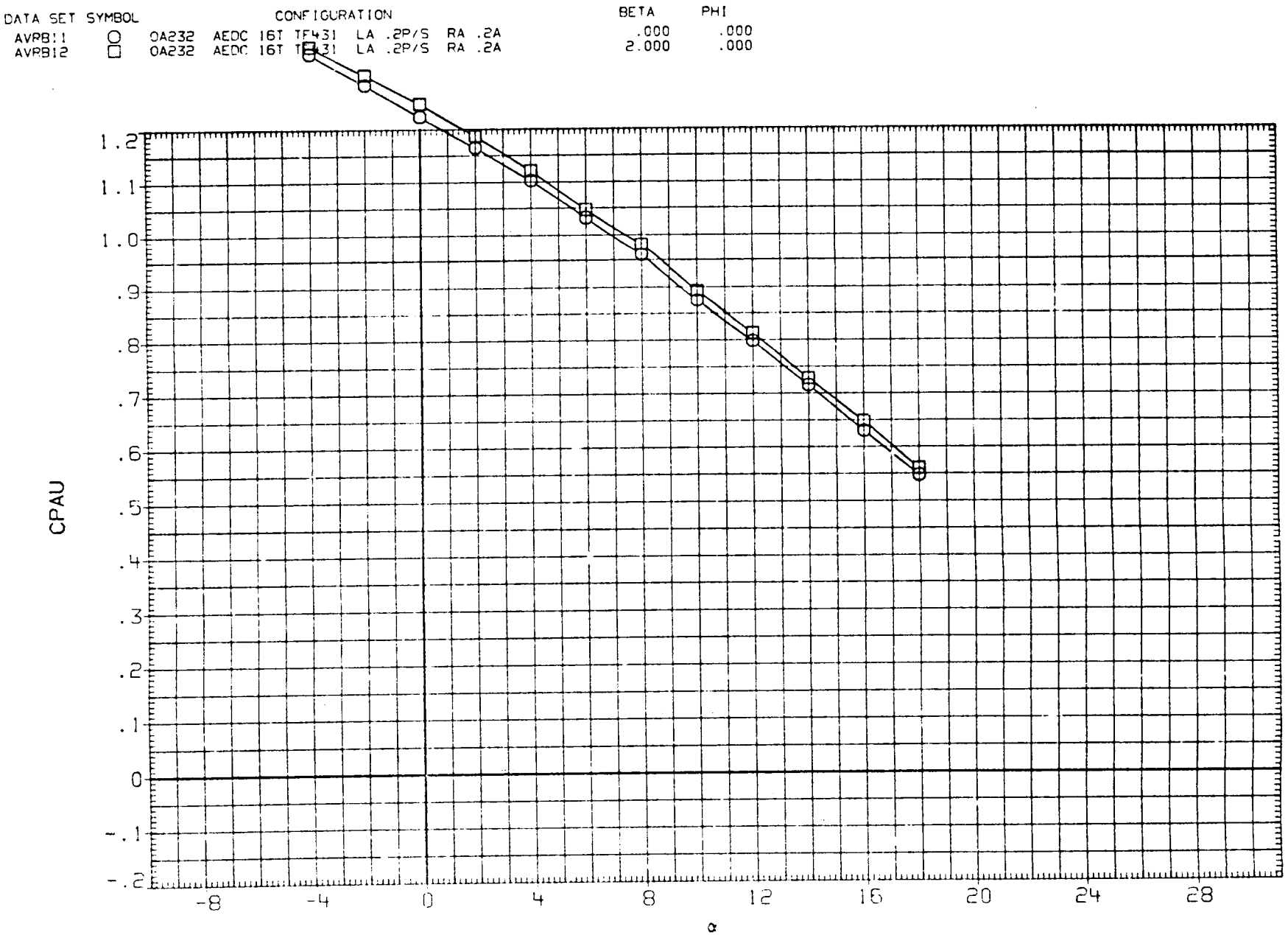


FIG. 40 0A232 SIDE PROBE CPAU VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE

(O)MACH = 1.30 DATE 09 AUG 78

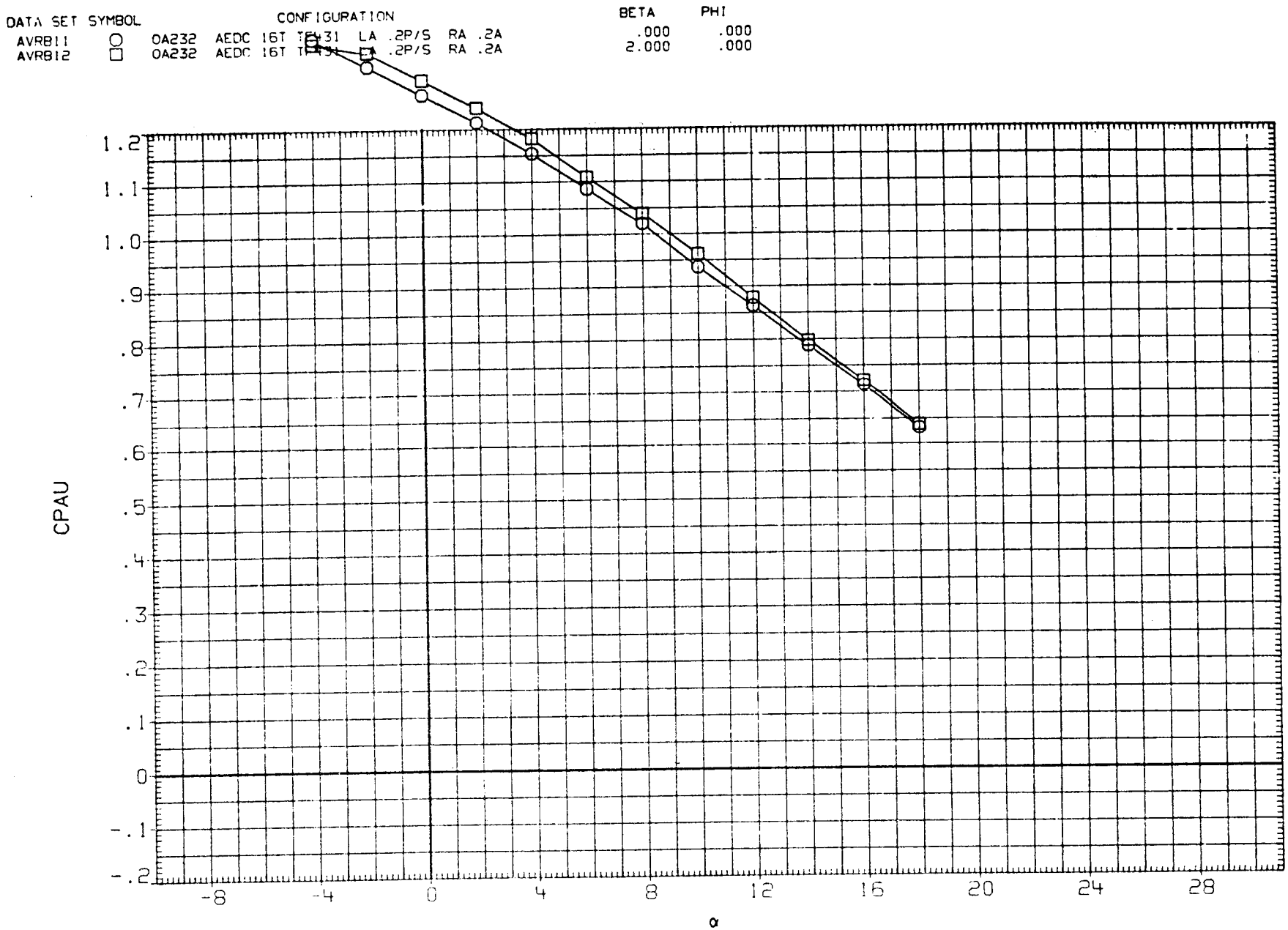


FIG. 40 0A232 SIDE PROBE CPAU VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE

(P)MACH = 1.40 DATE 09 AUG 78

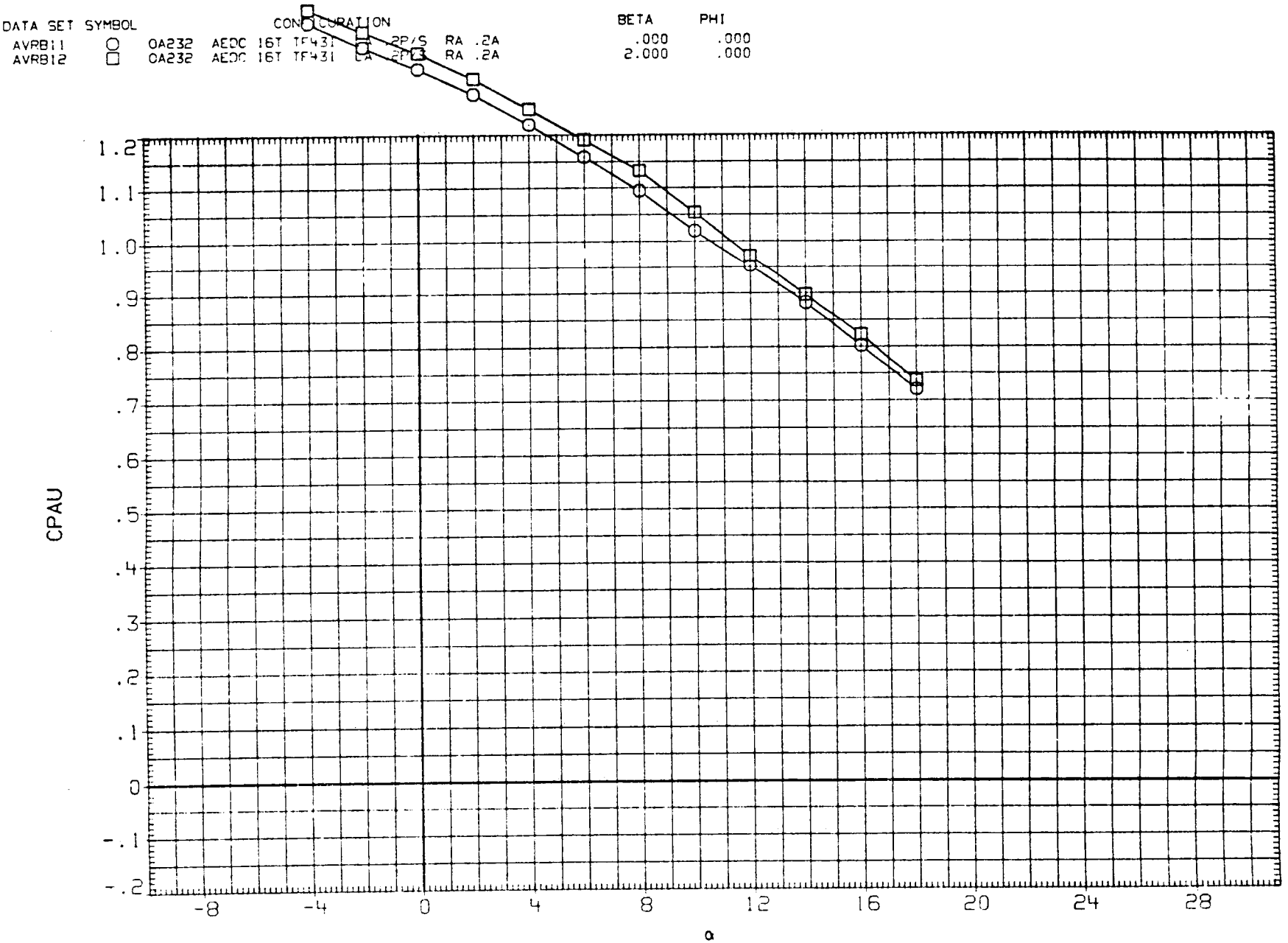


FIG. 40 OA232 SIDE PROBE CPAU VERSUS ALPHA AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON RIGHT SIDE

(Q) MACH = 1.55 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRB14	○	0A232	AEDC 16T TF431	LA .2A	RFN.1S	.000	.000
AVRB15	□	0A232	AEDC 16T TF431	LA .2A	RFN.1S	2.000	.000

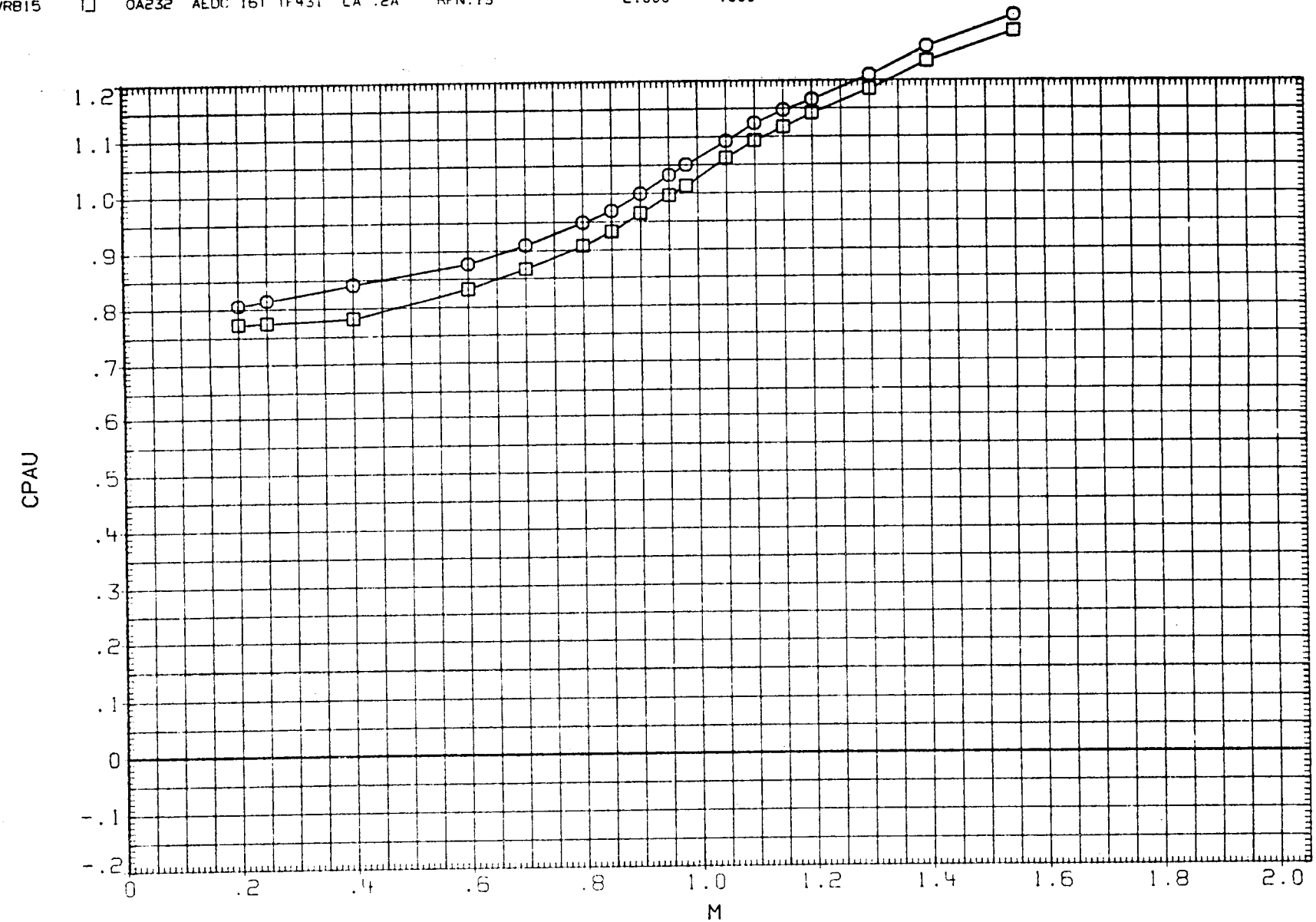


FIG. 41 0A232 SIDE PROBE CPAU VERSUS MACH NUMBER AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON LEFT SIDE

(A)ALPHA = .00

DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVR814	○	0A232	AEDC 16T TF431	LA .2A	RFN.15	.000	.000
AVR815	□	0A232	AEDC 16T TF431	LA .2A	RFN.15	2.000	.000

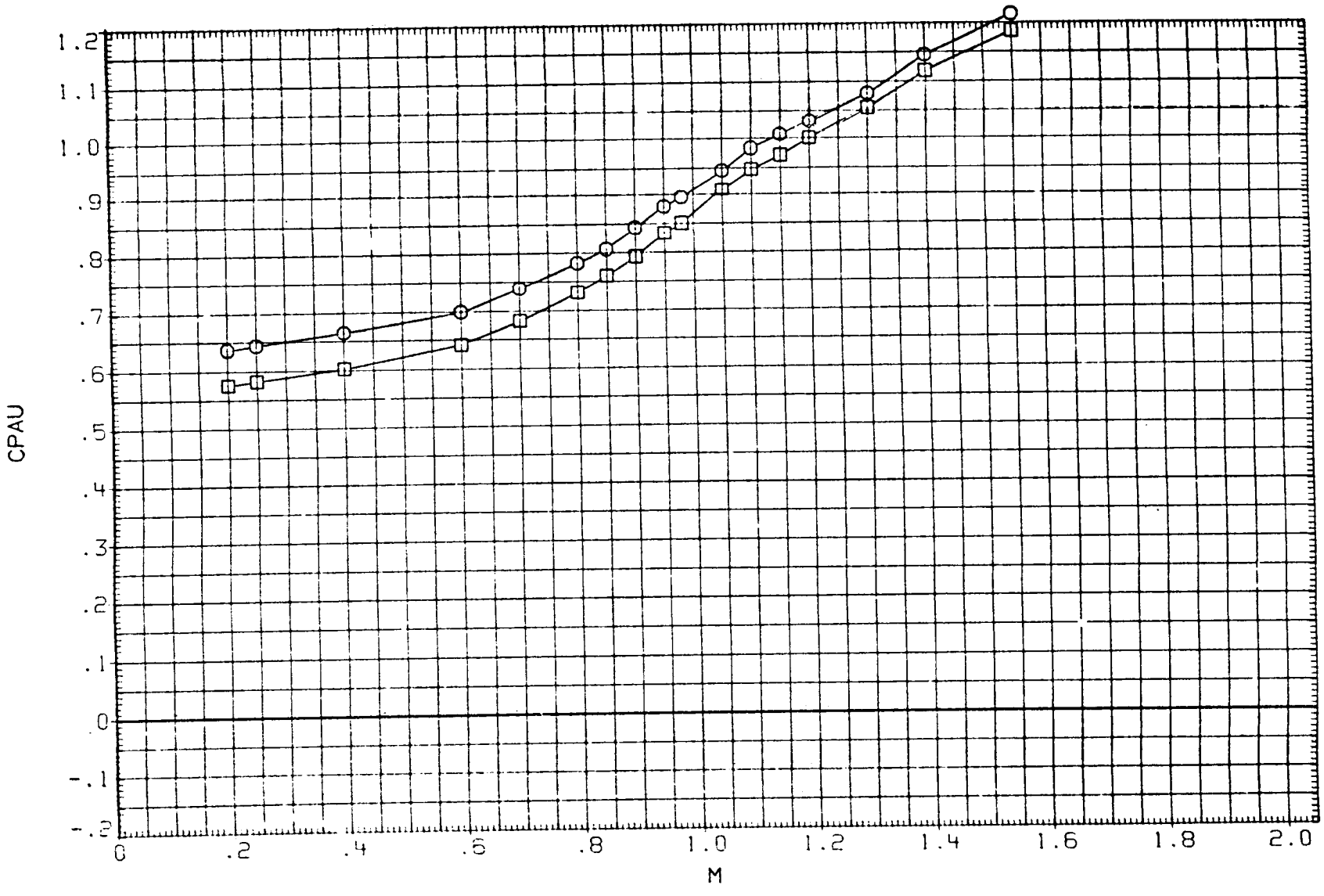


FIG. 41 0A232 SIDE PROBE CPAU VERSUS MACH NUMBER AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON LEFT SIDE

(B) ALPHA = 4.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRB14	○	0A232	AEDC 16T TF431	LA .2A	RFN.1S	.000	.000
AVRB15	□	0A232	AEDC 16T TF431	LA .2A	RFN.1S	2.000	.000

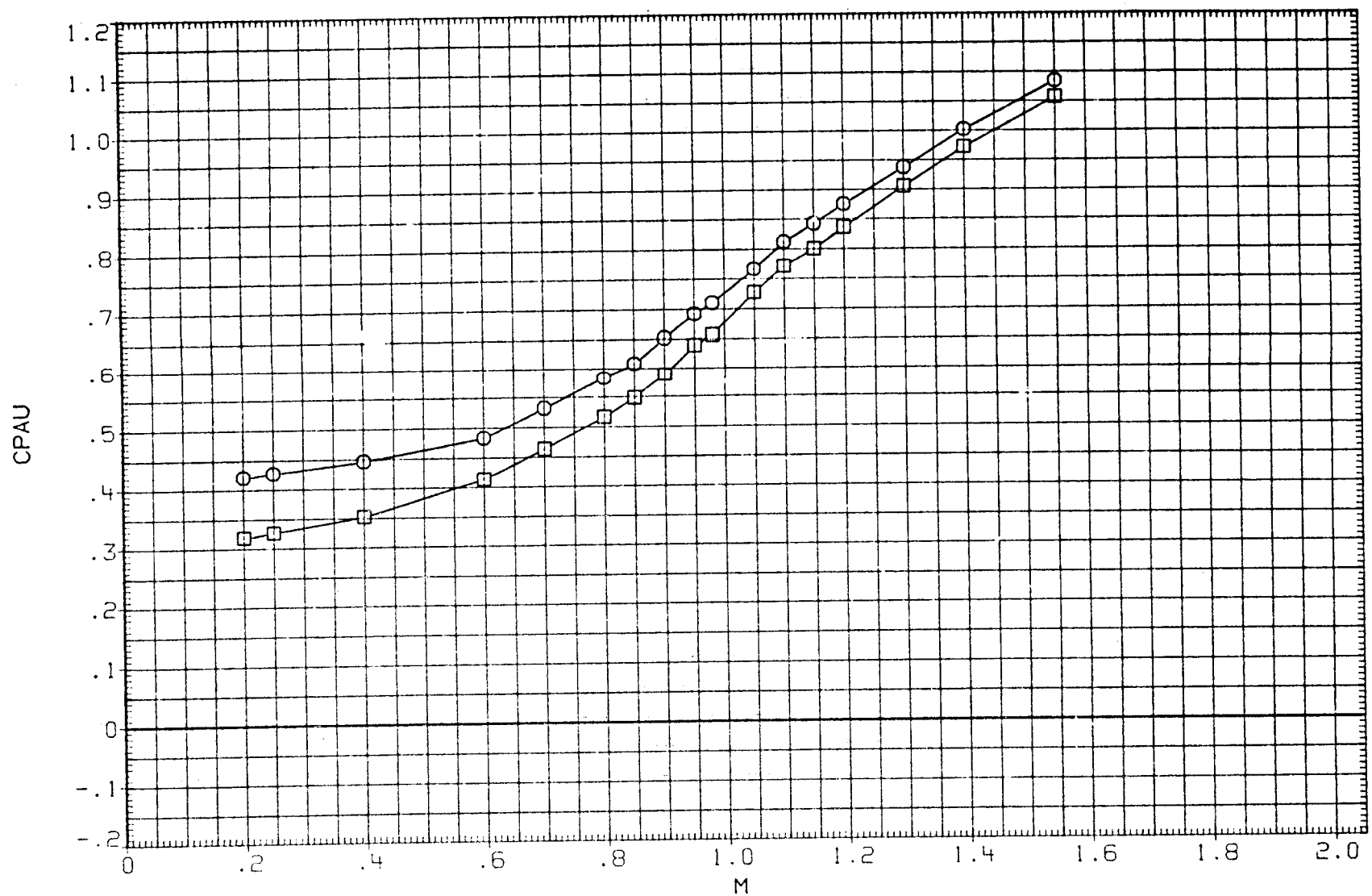


FIG. 41 0A232 SIDE PROBE CPAU VERSUS MACH NUMBER AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON LEFT SIDE

(C)ALPHA = 8.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVRB14	○	0A232	AEDC	16T	TF431	LA .2A RFN.1S	.000	.000
AVRB15	□	0A232	AEDC	16T	TF431	LA .2A RFN.1S	2.000	.000

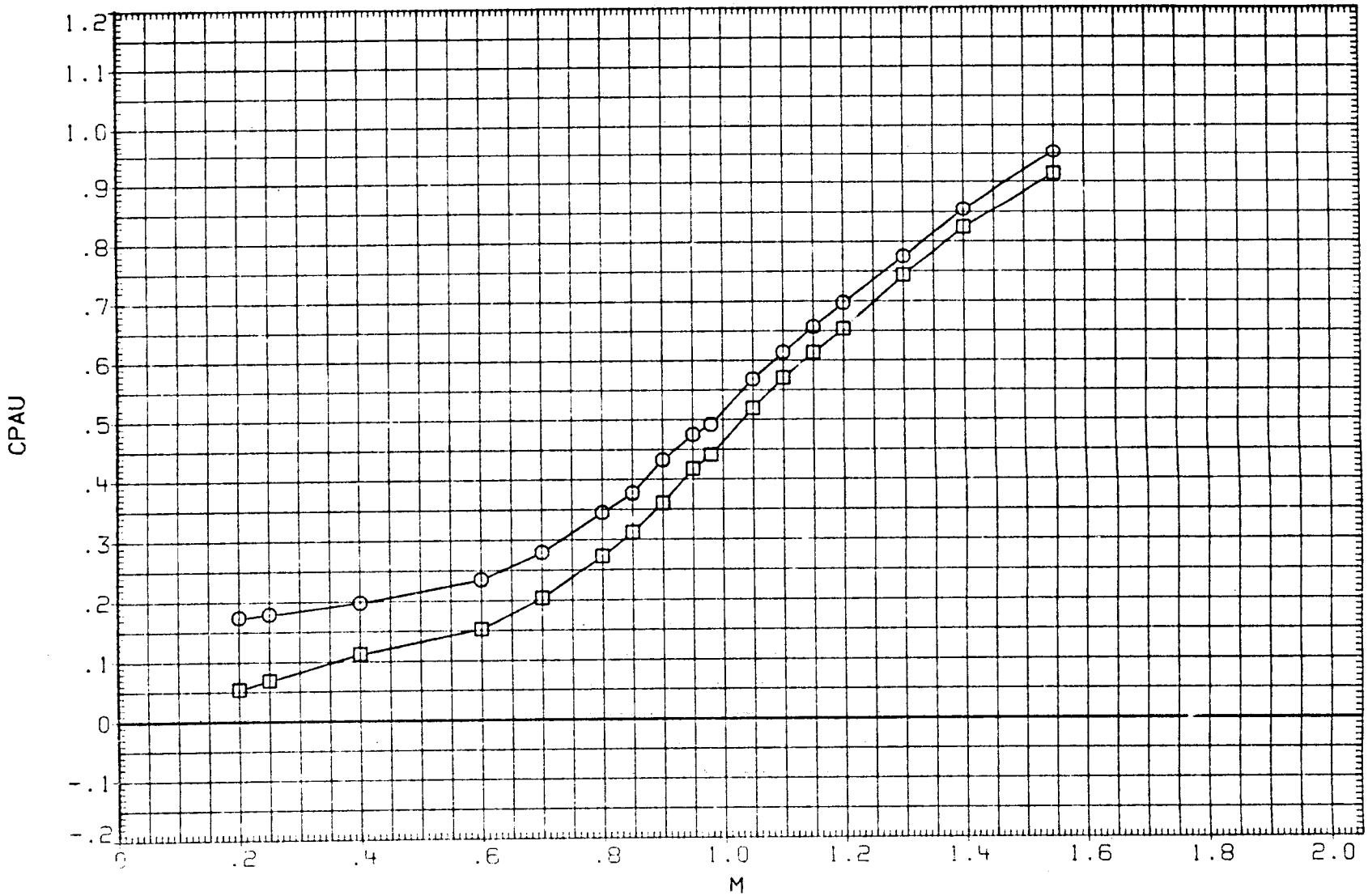


FIG. 41 0A232 SIDE PROBE CPAU VERSUS MACH NUMBER AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON LEFT SIDE

(D) ALPHA = 12.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRB14	○	0A232	AEDC 16T TF431	LA .2A	RFN.1S	.000	.000
AVRB15	□	0A232	AEDC 16T TF431	LA .2A	RFN.1S	2.000	.000

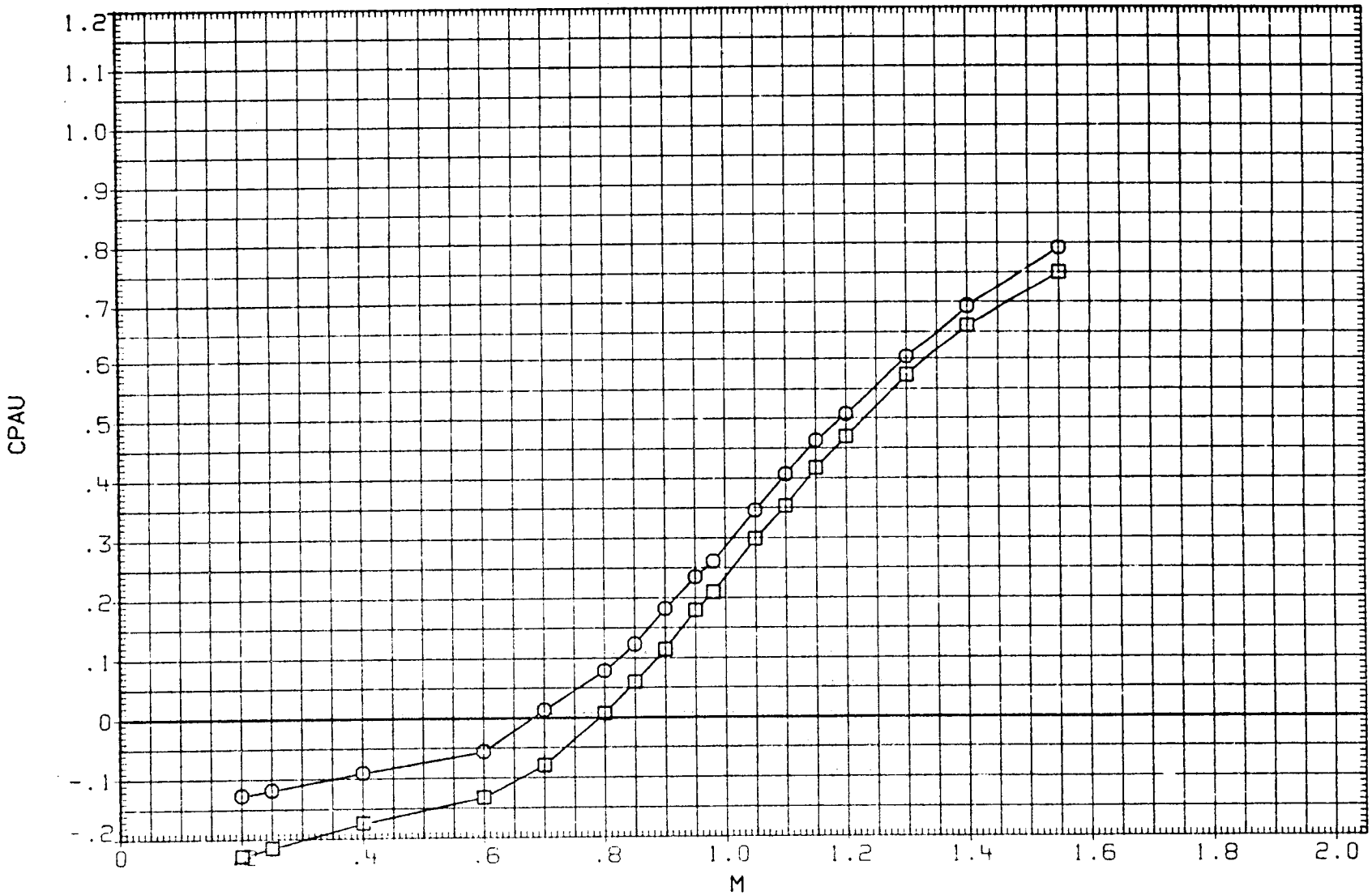


FIG. 41 0A232 SIDE PROBE CPAU VERSUS MACH NUMBER AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON LEFT SIDE

(E) ALPHA = 16.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVRB14	○	0A232	AEDC	16T	TF431	LA .2A RFN.1S	.000	.000
AVRB15	□	0A232	AEDC	16T	TF431	LA .2A RFN.1S	2.000	.000

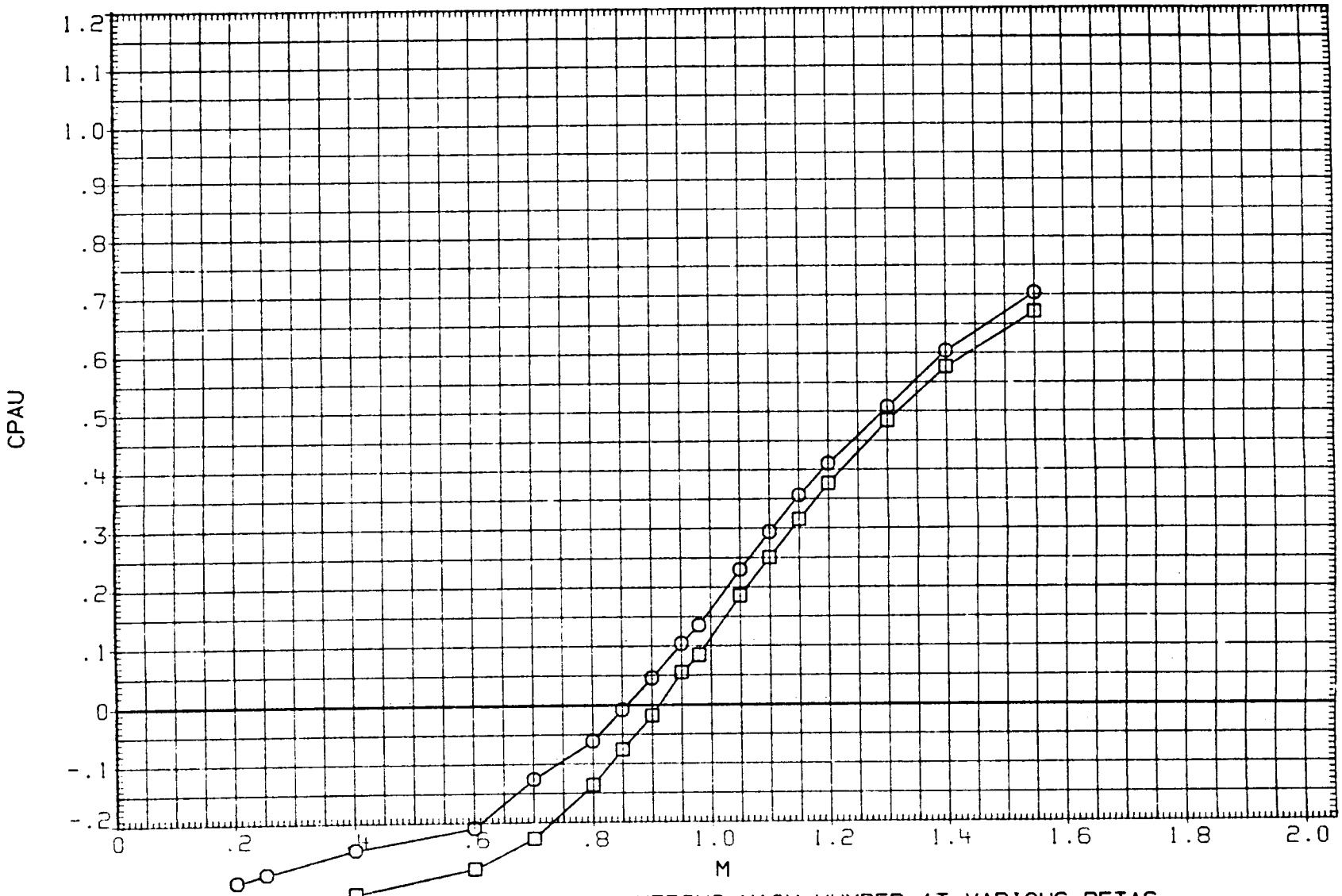


FIG. 41 0A232 SIDE PROBE CPAU VERSUS MACH NUMBER AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON LEFT SIDE

(F)ALPHA = 18.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB12	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

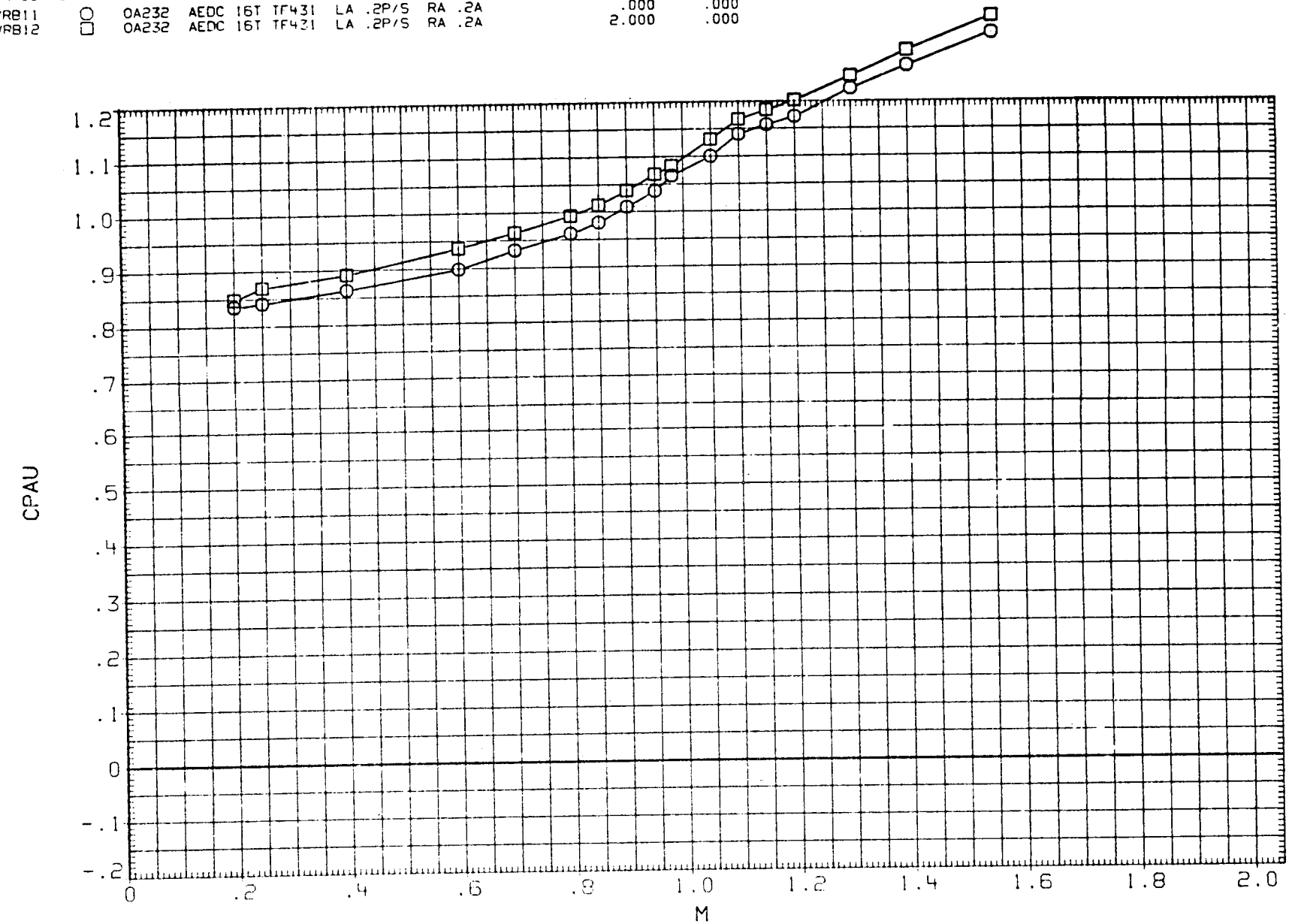


FIG. 42 0A232 SIDE PROBE CPAU VERSUS MACH NUMBER AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON RIGHT SIDE

(A) ALPHA = .00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRBI1	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRBI2	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

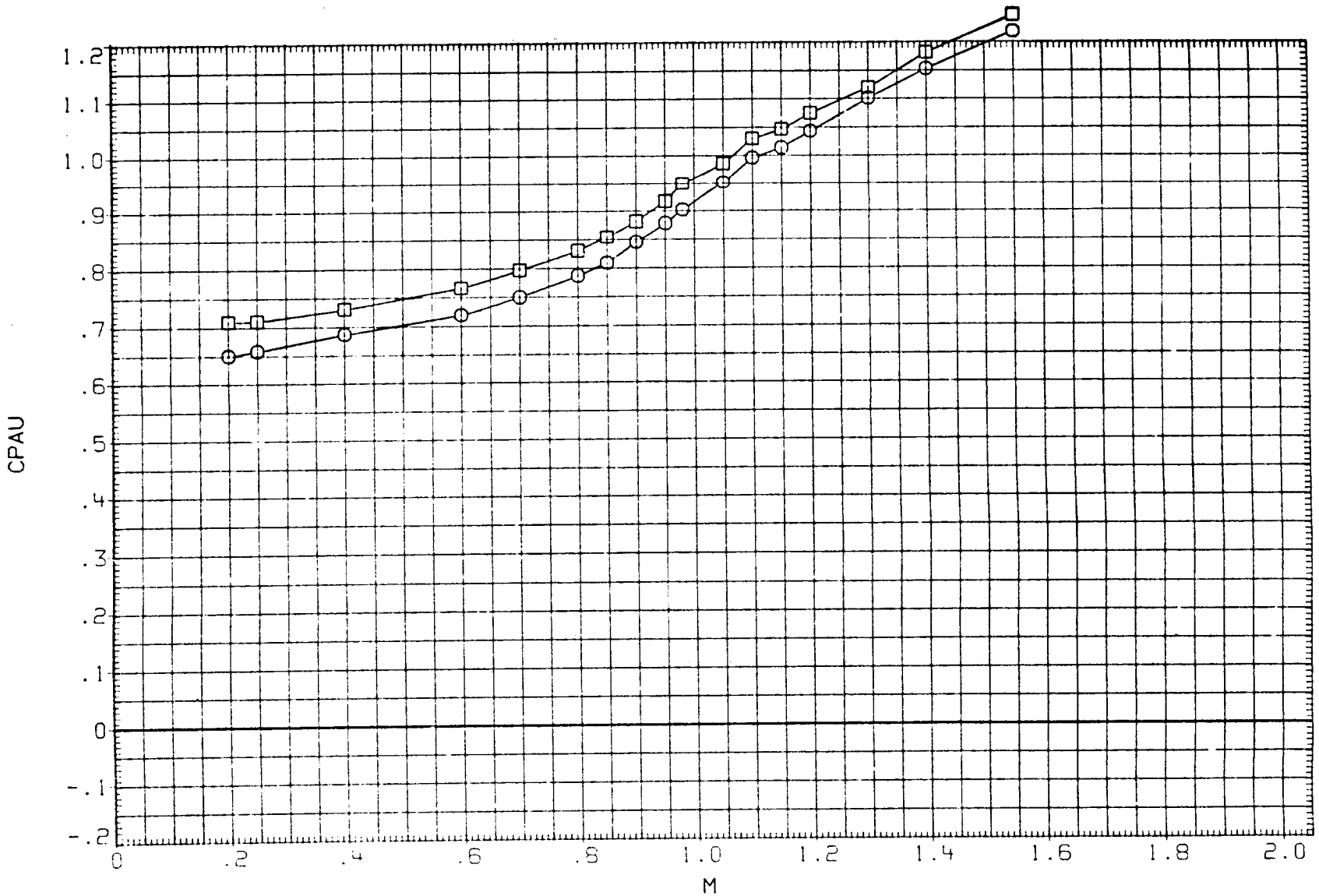


FIG. 42 0A232 SIDE PROBE CPAU VERSUS MACH NUMBER AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE

(B) ALPHA = 4.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB12	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

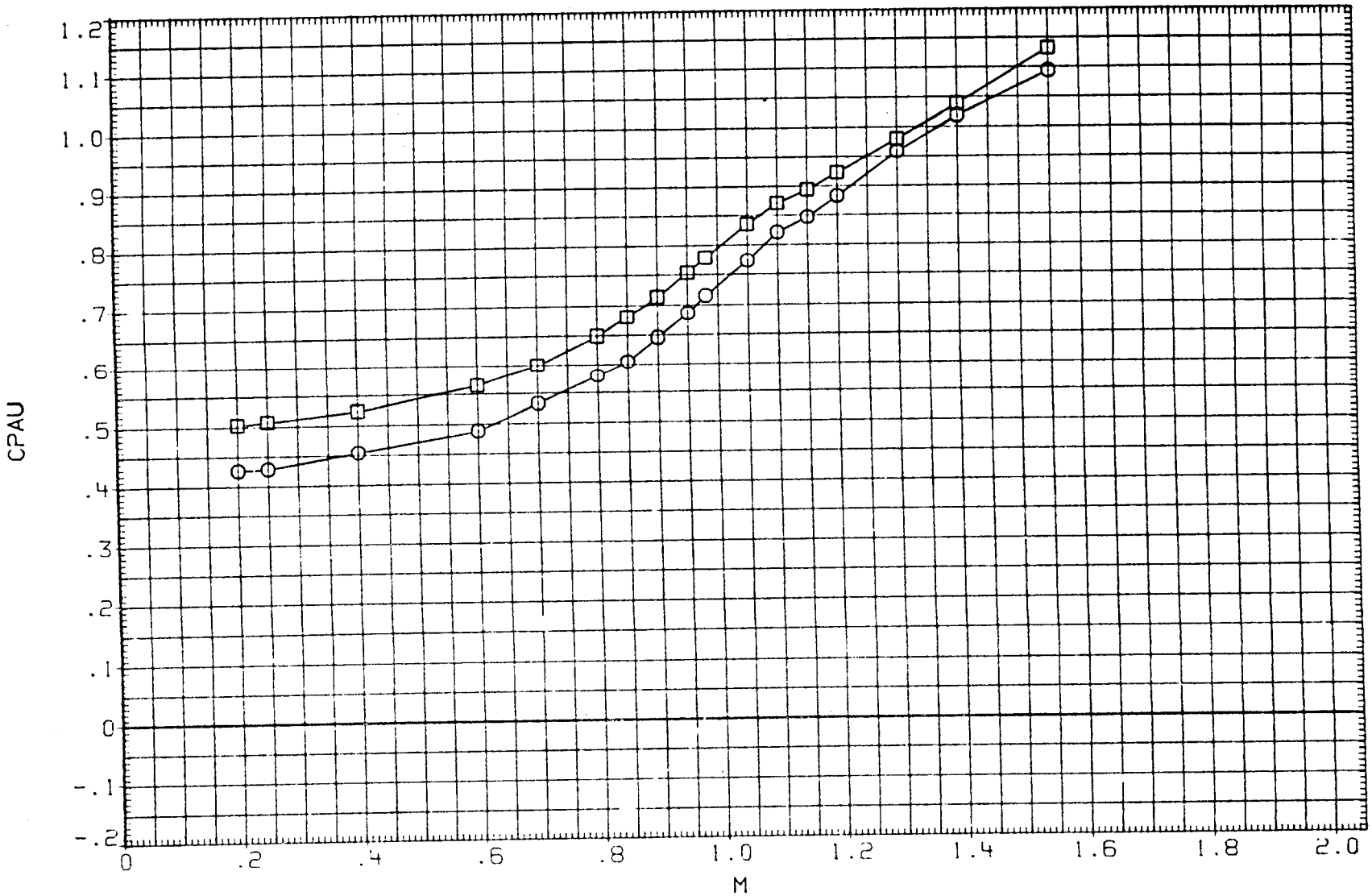


FIG. 42 0A232 SIDE PROBE CPAU VERSUS MACH NUMBER AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON RIGHT SIDE

(C) ALPHA = 8.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB12	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

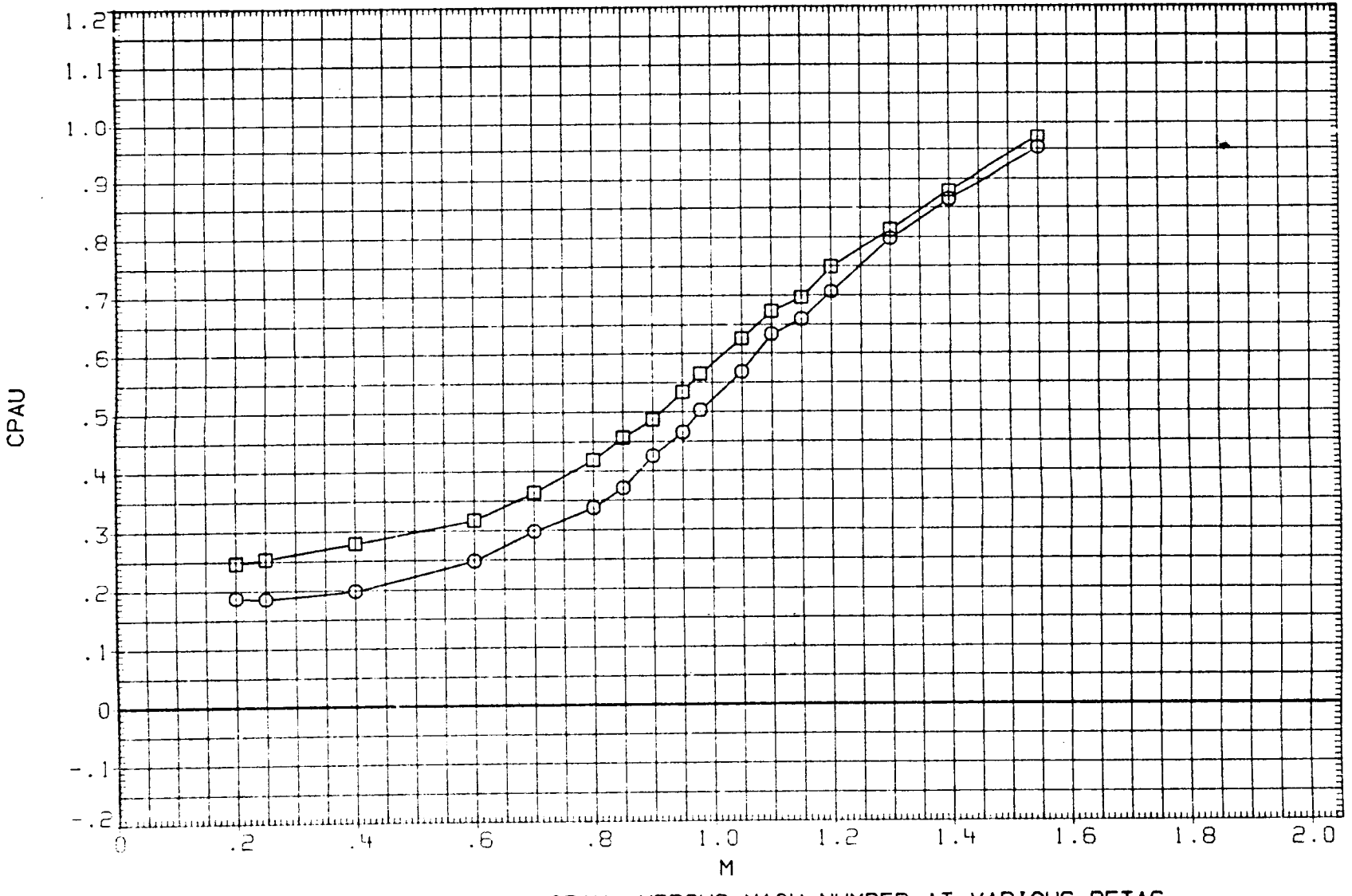


FIG. 42 0A232 SIDE PROBE CPAU VERSUS MACH NUMBER AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON RIGHT SIDE

(D) ALPHA = 12.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB12	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

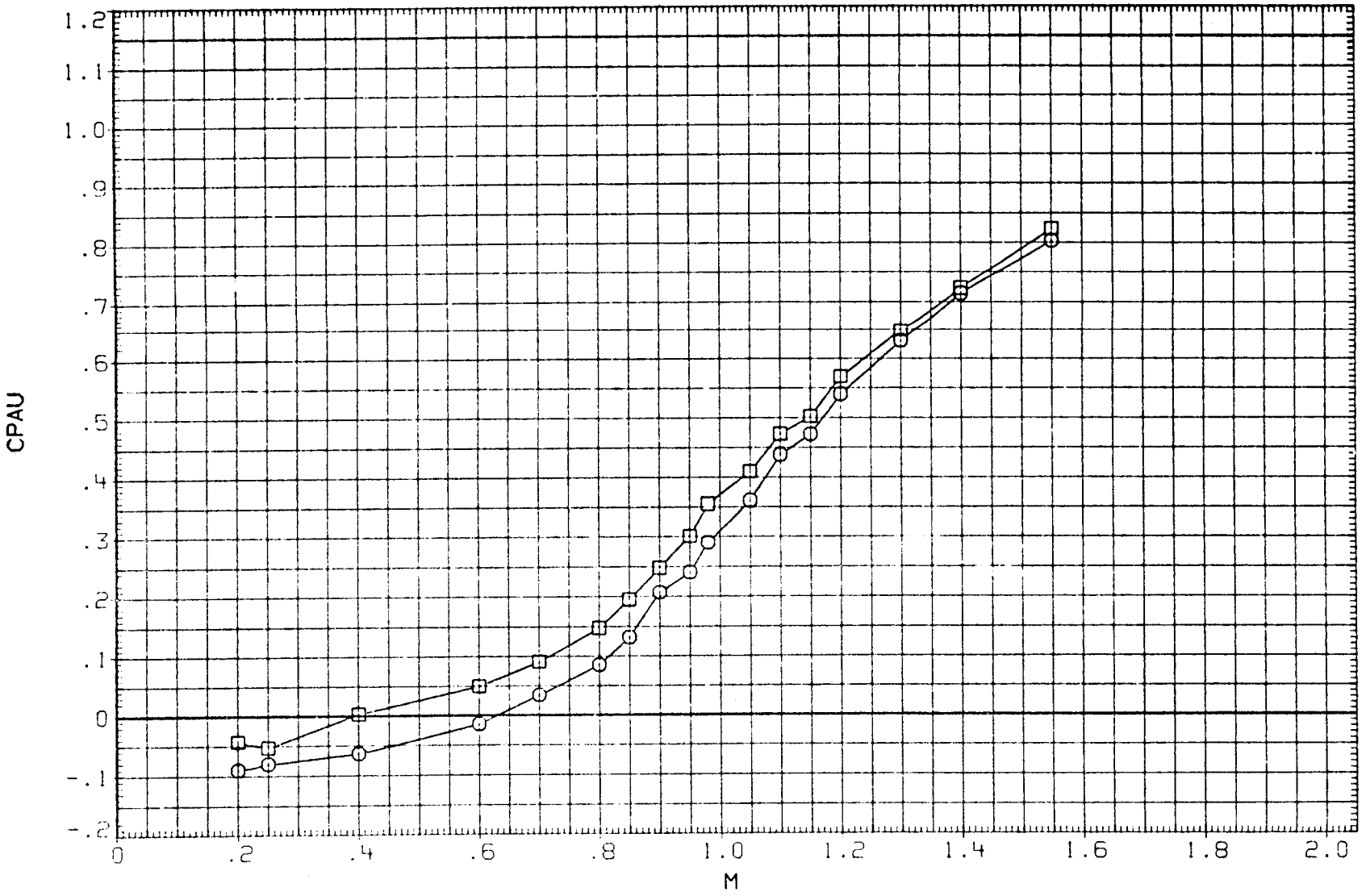


FIG. 42 0A232 SIDE PROBE CPAU VERSUS MACH NUMBER AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE

(E)ALPHA = 16.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRB12	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	2.000	.000

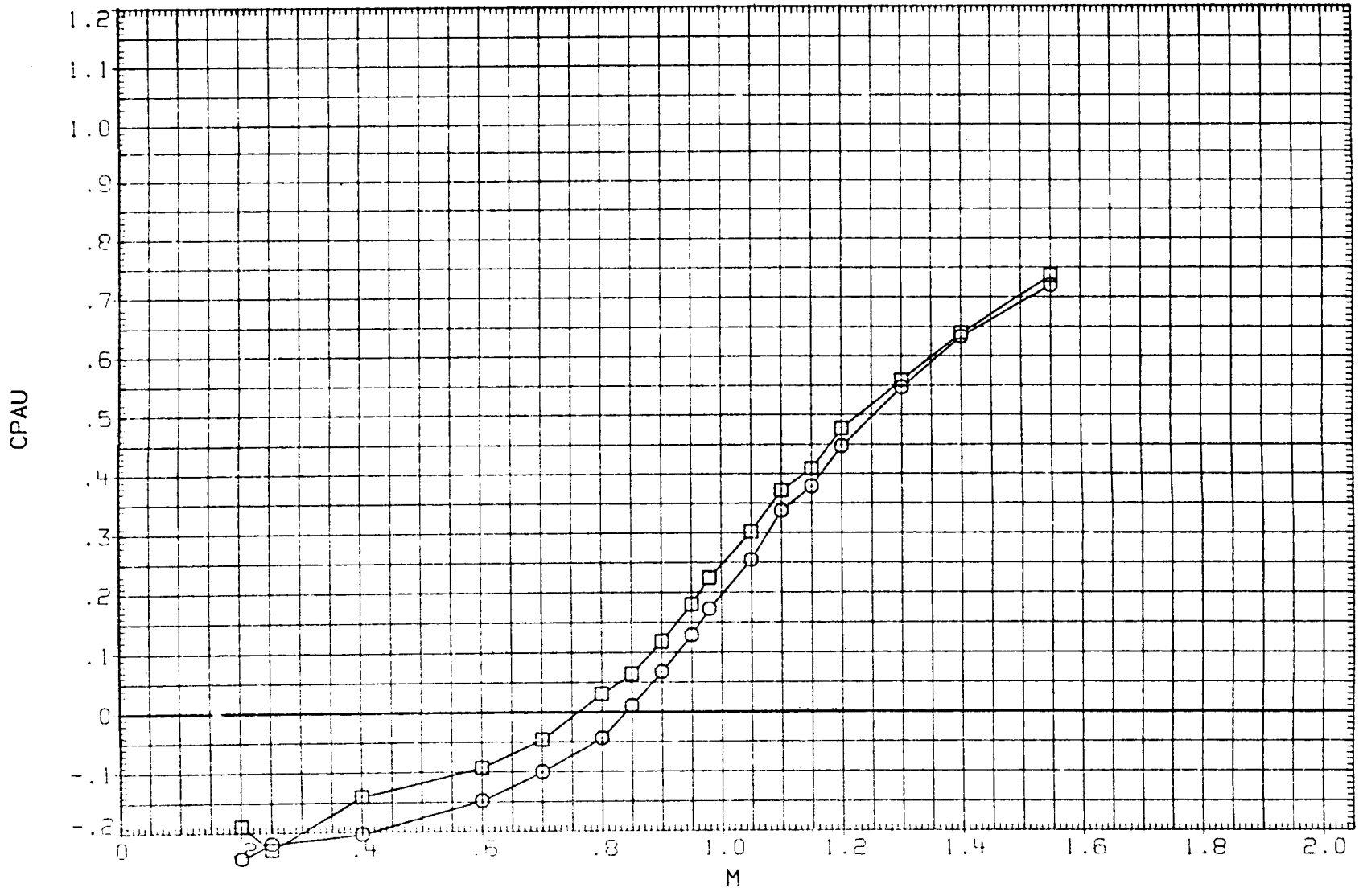


FIG. 42 0A232 SIDE PROBE CPAU VERSUS MACH NUMBER AT VARIOUS BETAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON RIGHT SIDE

(F)ALPHA = 18.00 DATE 09 AUG 78

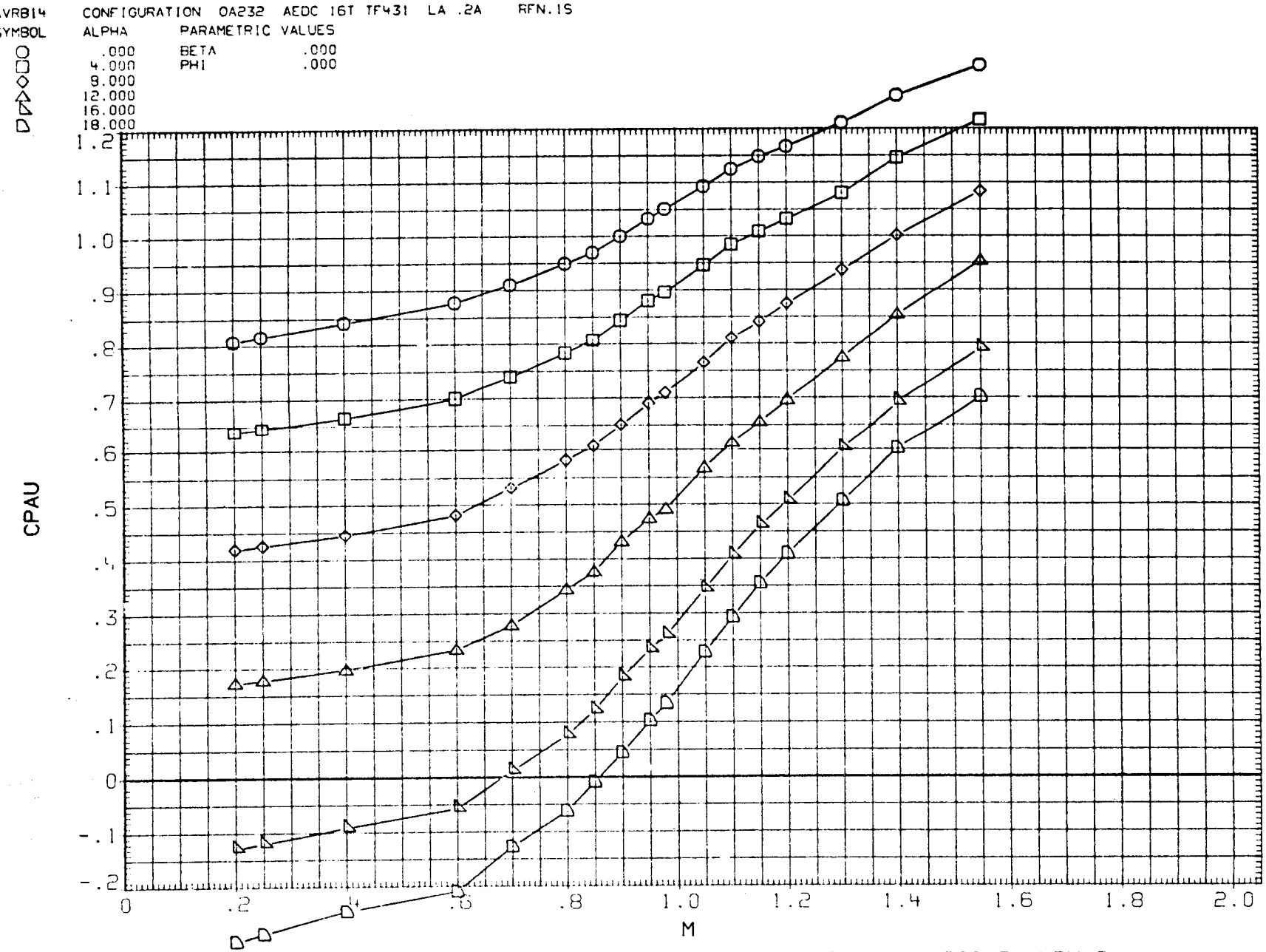


FIG. 43 0A232 SIDE PROBE CPAU VERSUS MACH NUMBER AT VARIOUS ALPHAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON LEFT SIDE

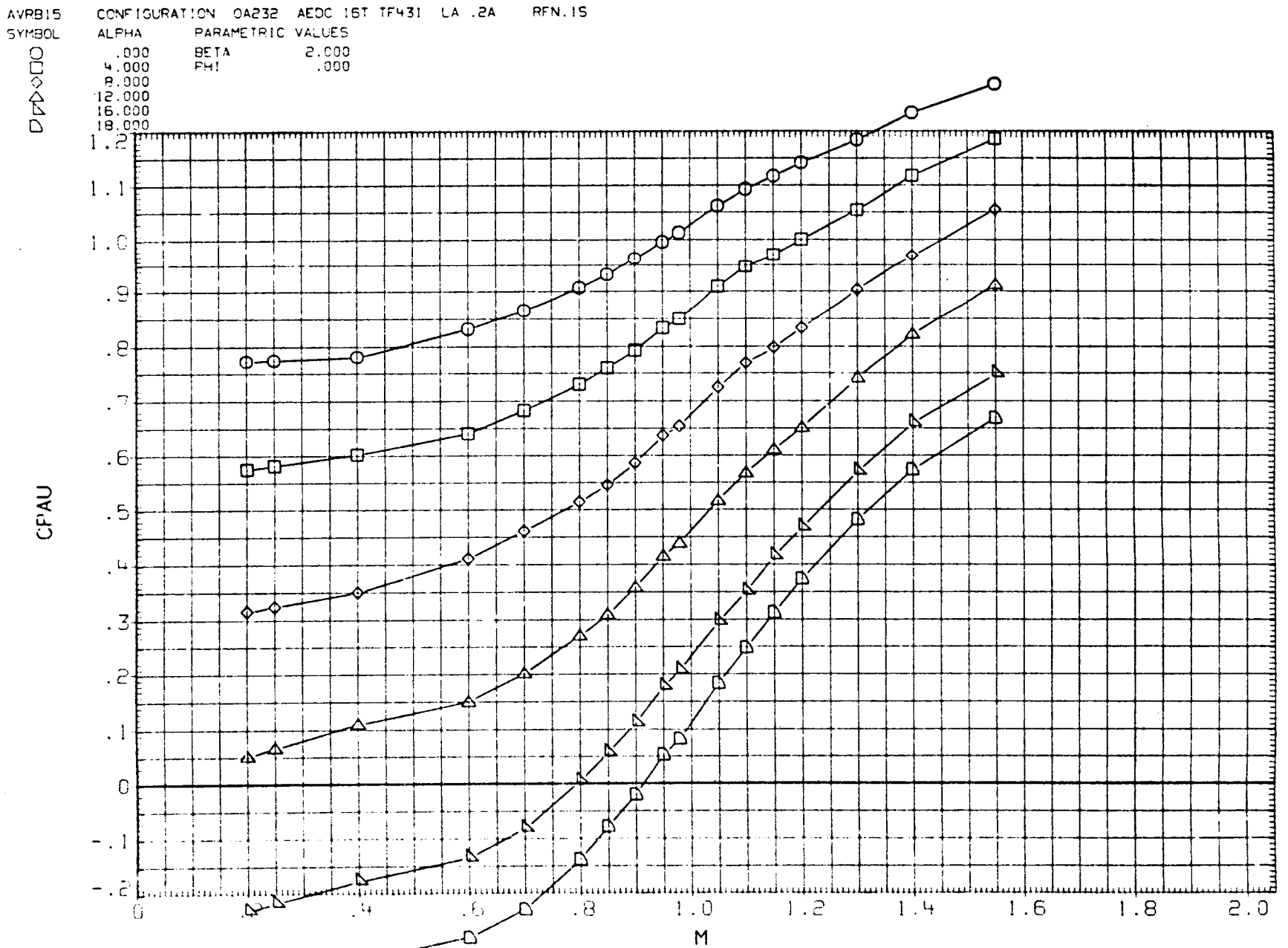


FIG. 43 0A232 SIDE PROBE CPAU VERSUS MACH NUMBER AT VARIOUS ALPHAS
DATA INTERPOLATED WITH MACH,ALPHA,BETA PROBE ON LEFT SIDE

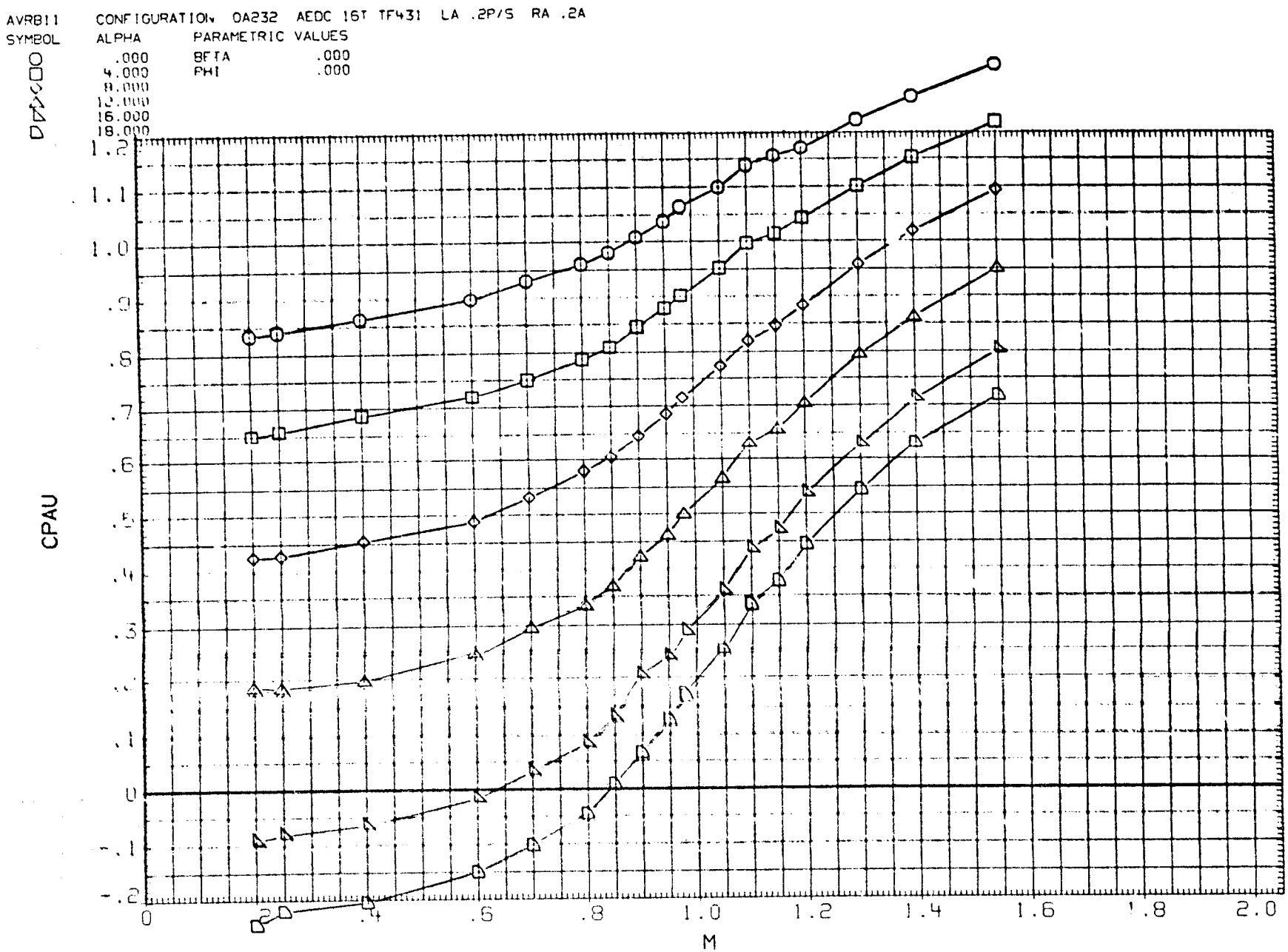


FIG. 44 OA232 SIDE PROBE CPAU VERSUS MACH NUMBER AT VARIOUS ALPHAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON RIGHT SIDE
DATE 09 AUG 78

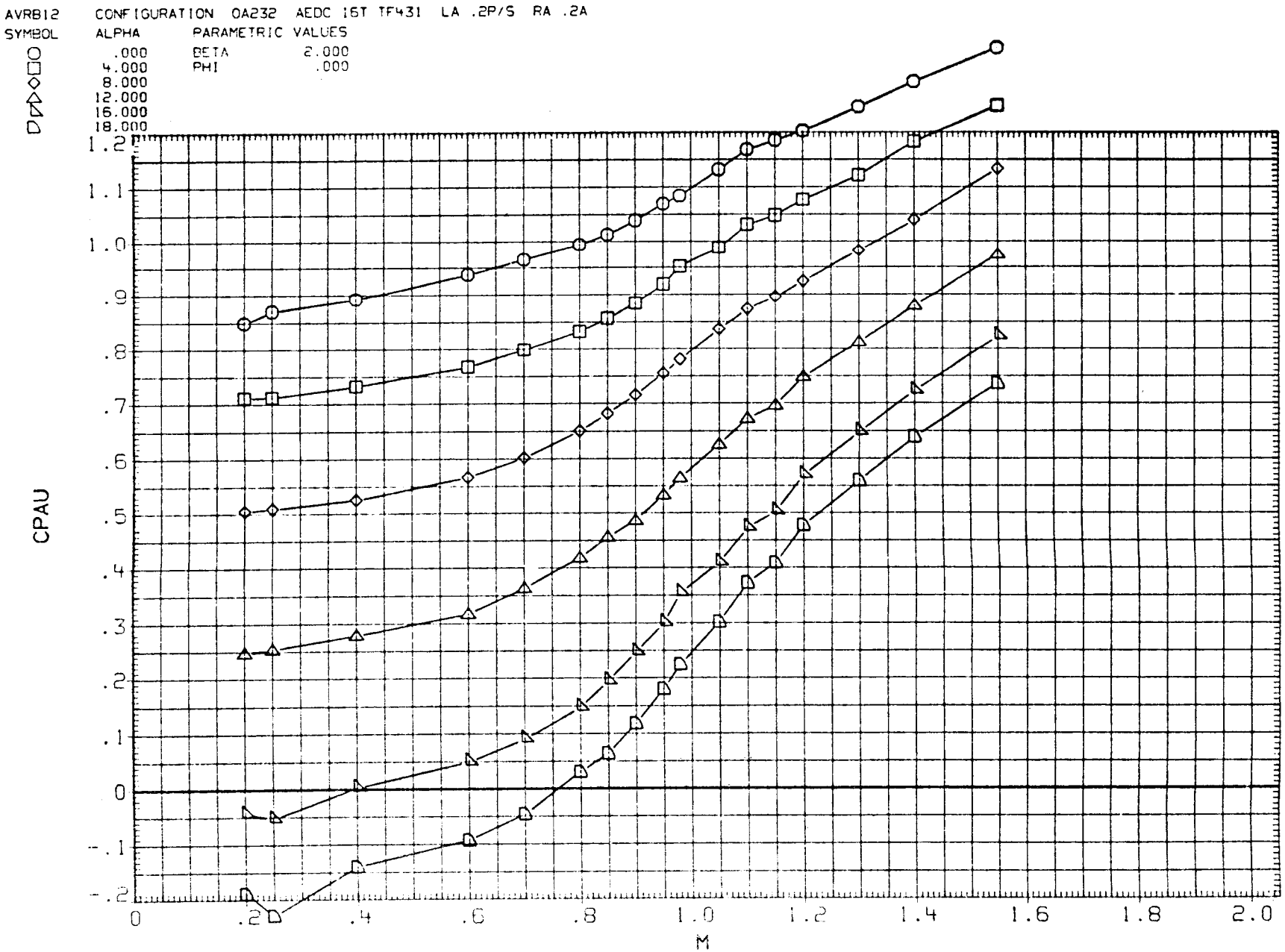


FIG. 44 0A232 SIDE PROBE CPAU VERSUS MACH NUMBER AT VARIOUS ALPHAS
DATA INTERPOLATED WITH MACH, ALPHA, BETA PROBE ON RIGHT SIDE
DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRJ14	○	0A232 AEDC 16T TF431 LA .2A RFN.1S	.000	.000
AVRI16	□	DATA NOT AVAILABLE	.000	.000

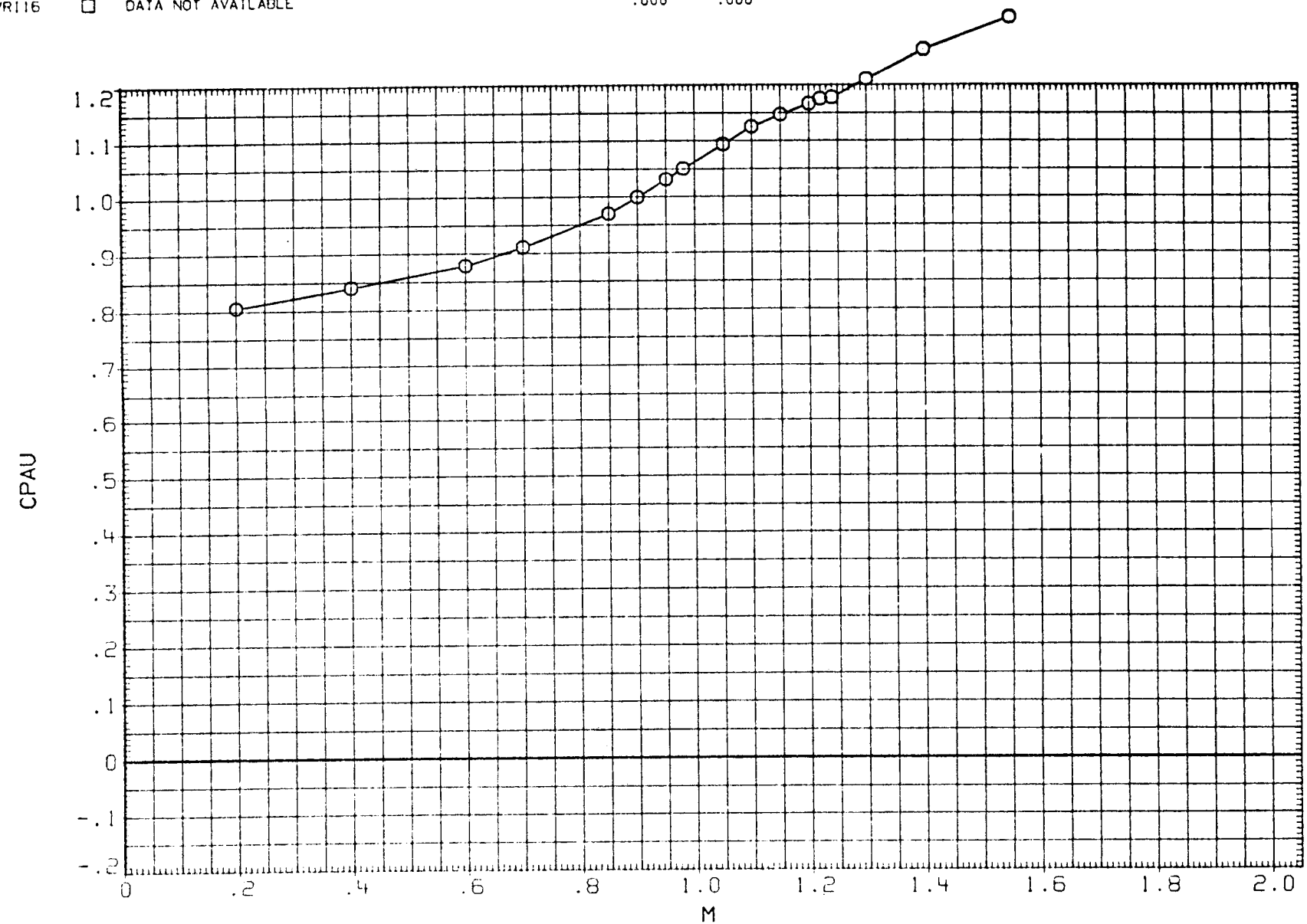


FIG. 45 0A232 SIDE PROBE CPAU VERSUS MACH NUMBER FINE CUT
DATA INTERPOLATED WITH MACH, ALPHA PROBE ON LEFT SIDE

(A) ALPHA = .00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION		BETA	PHI
AVRJ14	○	0A232 AEDC 16T TF431 LA .2A	RFN.1S	.000	.000
AVRI16	□	DATA NOT AVAILABLE		.000	.000

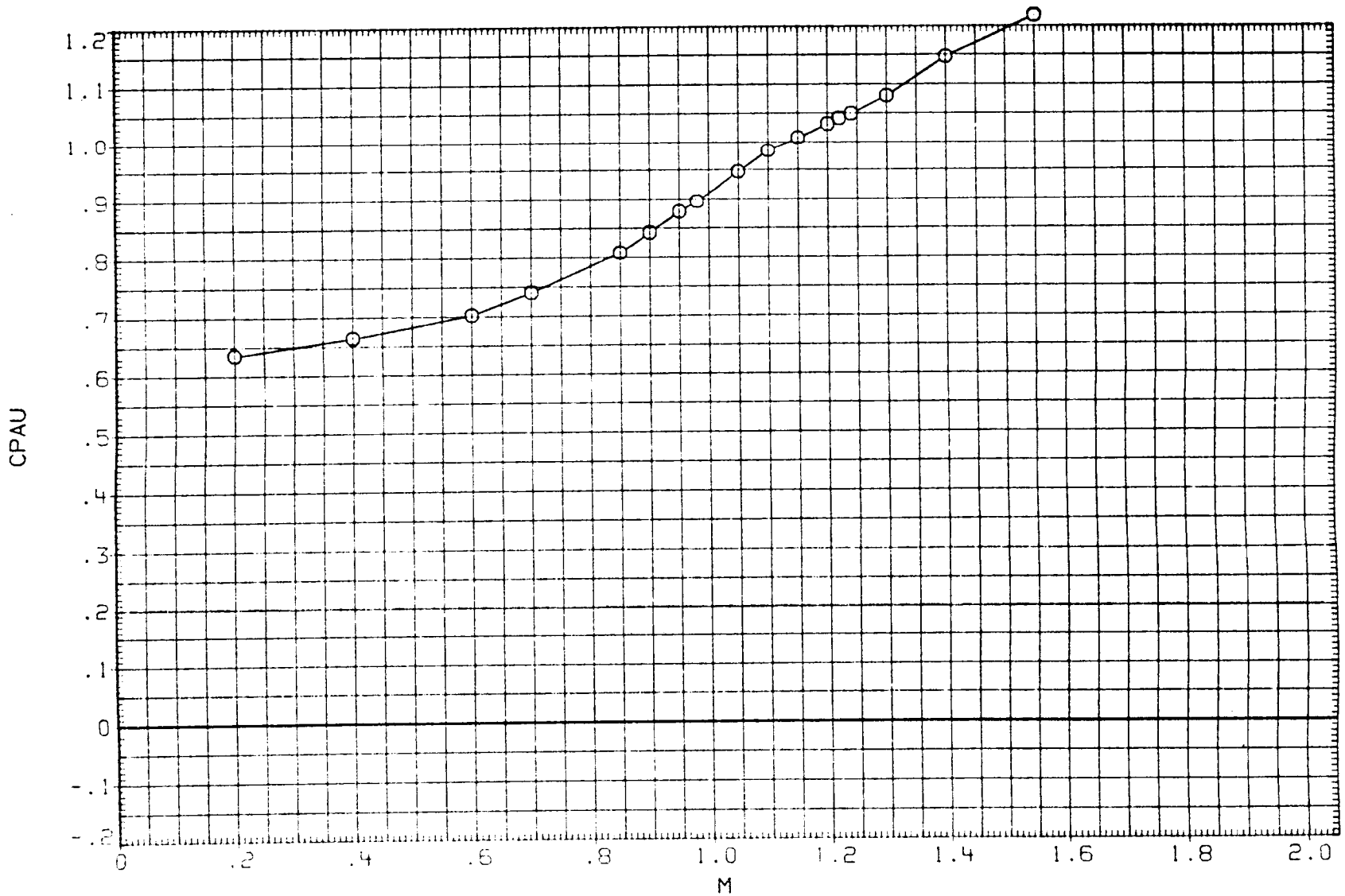


FIG. 45 0A232 SIDE PROBE CPAU VERSUS MACH NUMBER FINE CUT
DATA INTERPOLATED WITH MACH, ALPHA PROBE ON LEFT SIDE

(B) ALPHA = 4.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
AVRJ14	○	0A232	AEDC 16T TF431	LA .2A	REN.1S	.000	.000
AVRI16	□	0A232	AEDC 16T TF431	LA .2A	REN.1S	.000	.000

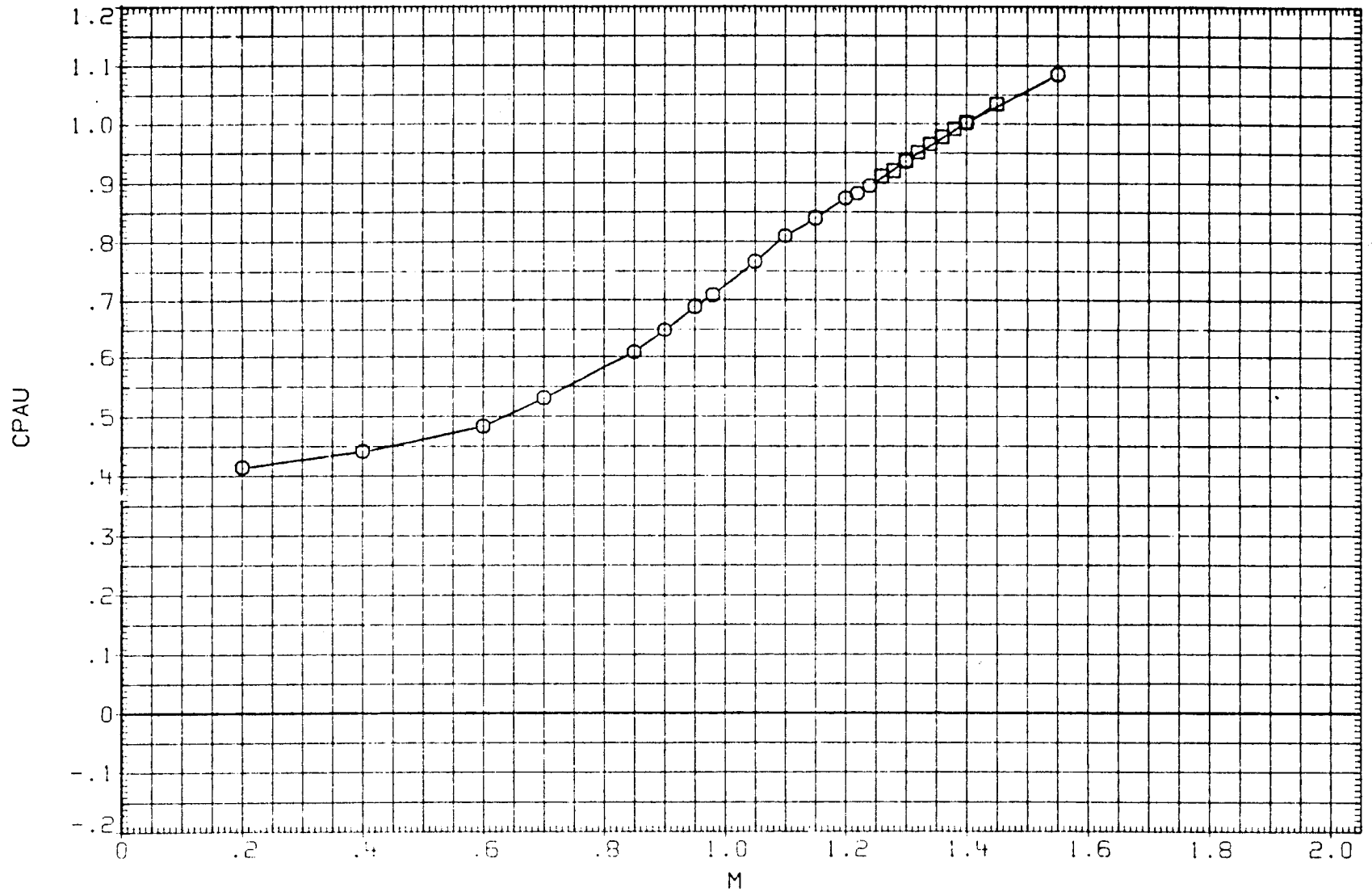


FIG. 45 0A232 SIDE PROBE CPAU VERSUS MACH NUMBER FINE CUT
DATA INTERPOLATED WITH MACH, ALPHA PROBE ON LEFT SIDE

(C) ALPHA = 8.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVRJ14	○	0A232	AEDC 16T TF431	LA .2A		REN.1S	.000	.000
AVRI16	□	0A232	AEDC 16T TF431	LA .2A		REN.1S	.000	.000

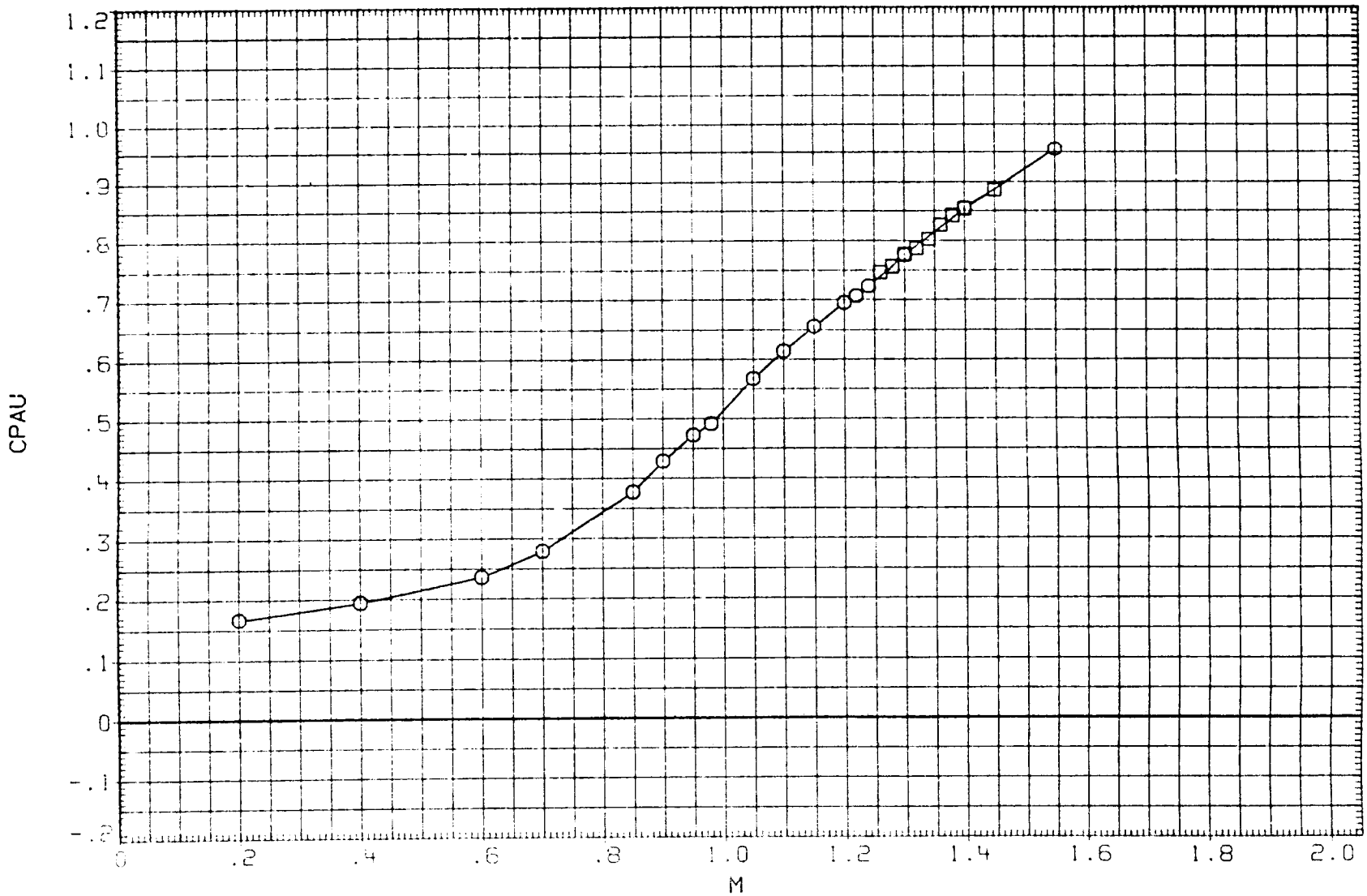


FIG. 45 0A232 SIDE PROBE CPAU VERSUS MACH NUMBER FINE CUT
DATA INTERPOLATED WITH MACH, ALPHA PROBE ON LEFT SIDE

(D) ALPHA = 12.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVRJ14	○	0A232	AEDC	16T	TF431	LA .2A	REF.1S	.000	.000
AVRI16	□	0A232	AEDC	16T	TF431	LA .2A	REF.1S	.000	.000

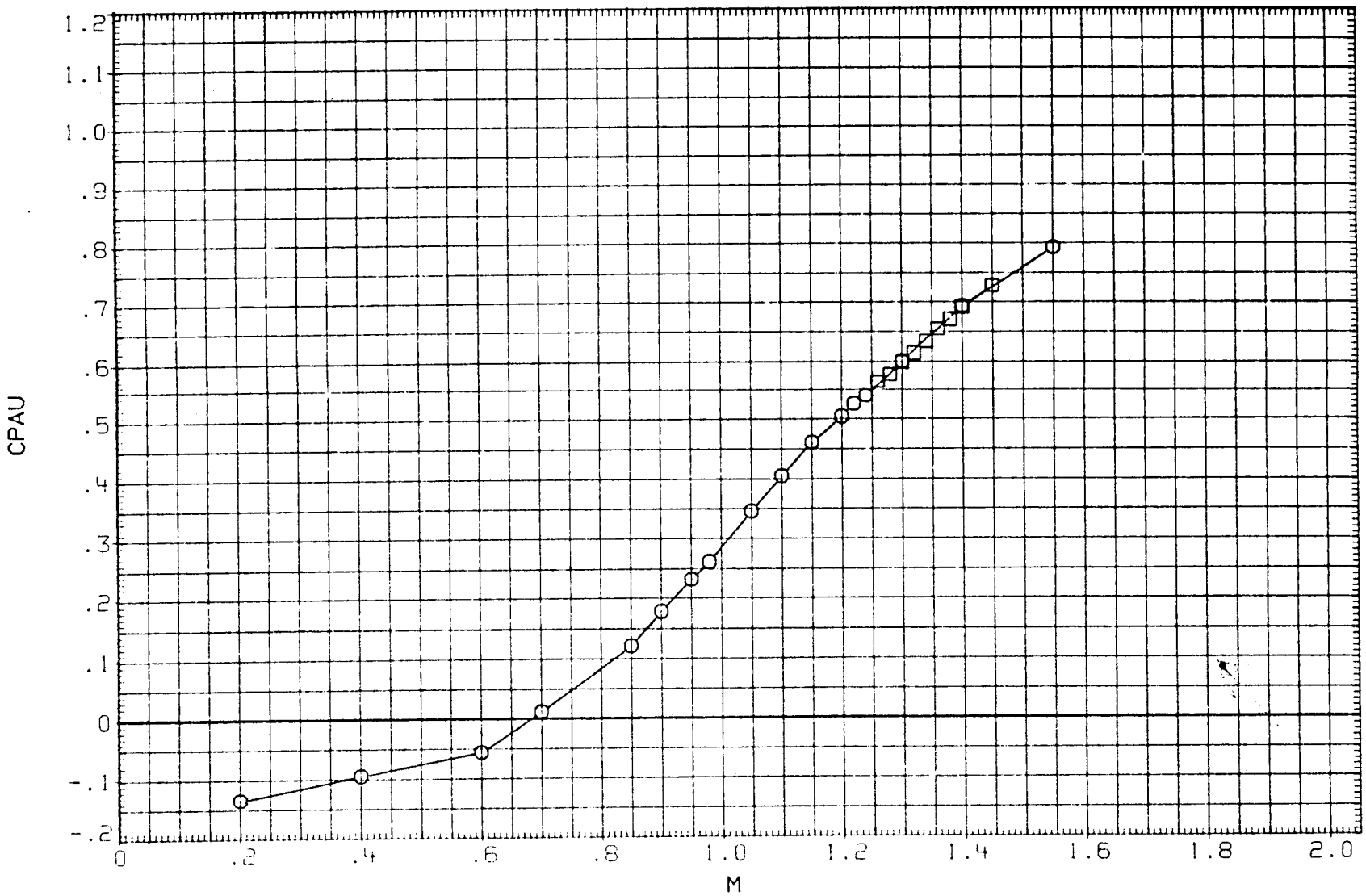


FIG. 45 0A232 SIDE PROBE CPAU VERSUS MACH NUMBER FINE CUT
DATA INTERPOLATED WITH MACH, ALPHA PROBE ON LEFT SIDE

(E)ALPHA = 16.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVR114	○	OA232	AEDC	16T	TF431	LA .2A	REN.1S	.000	.000
AVR116	□	OA232	AEDC	16T	TF431	LA .2A	REN.1S	.000	.000

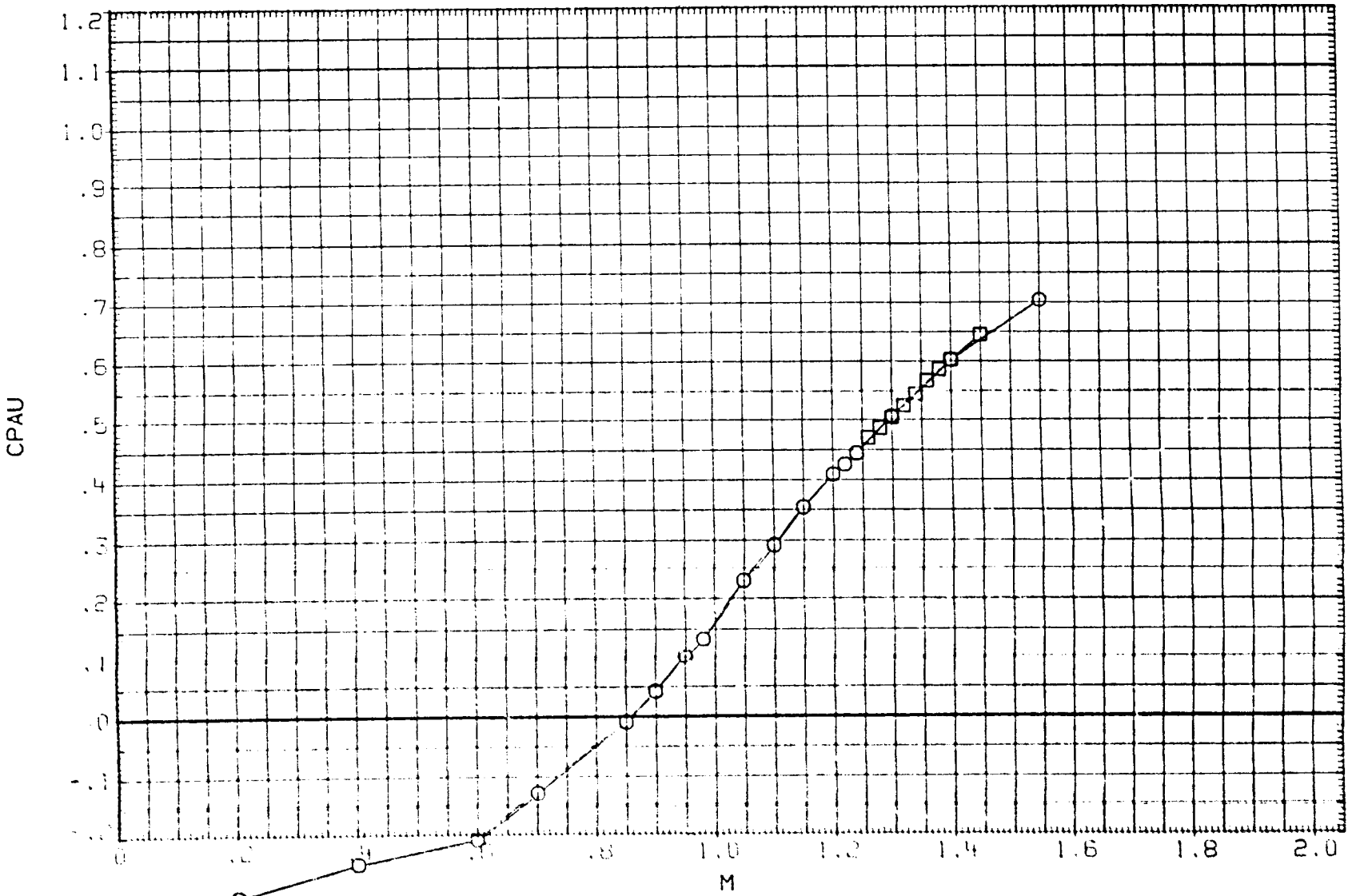


FIG. 45 OA232 SIDE PROBE CPAU VERSUS MACH NUMBER FINE CUT
DATA INTERPOLATED WITH MACH, ALPHA PROBE ON LEFT SIDE

(F) ALPHA = 18.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRJ11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRI13	□	DATA NOT AVAILABLE	.000	180.000

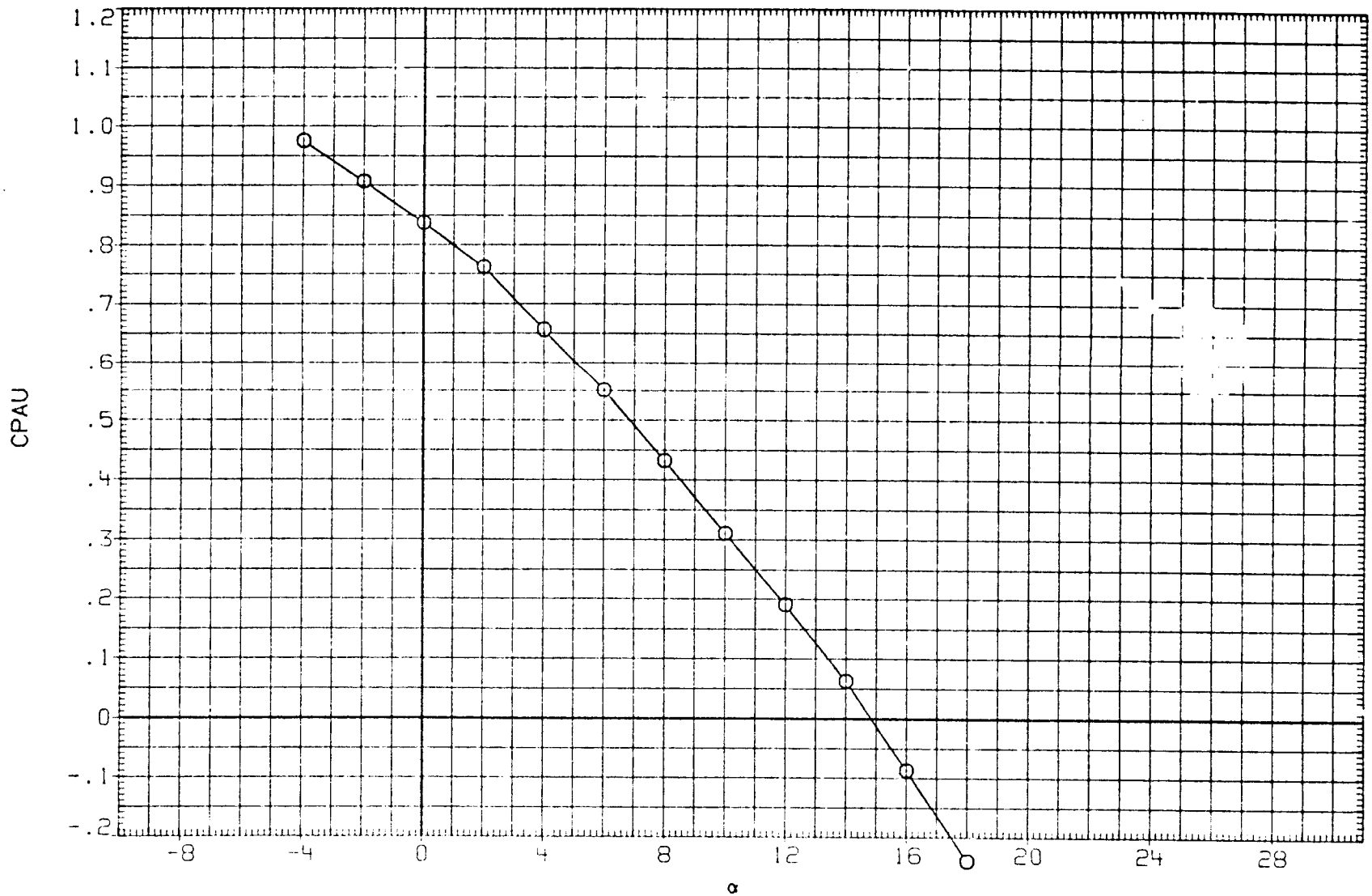


FIG. 46 0A232 SIDE PROBE CPAU VERSUS ALPHA REPEATABILITY, INVERTED
DATA INTERPOLATED WITH MACH, ALPHA PROBE ON RIGHT SIDE

(A) MACH = .20 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRJ11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRI13	□	DATA NOT AVAILABLE	.000	180.000

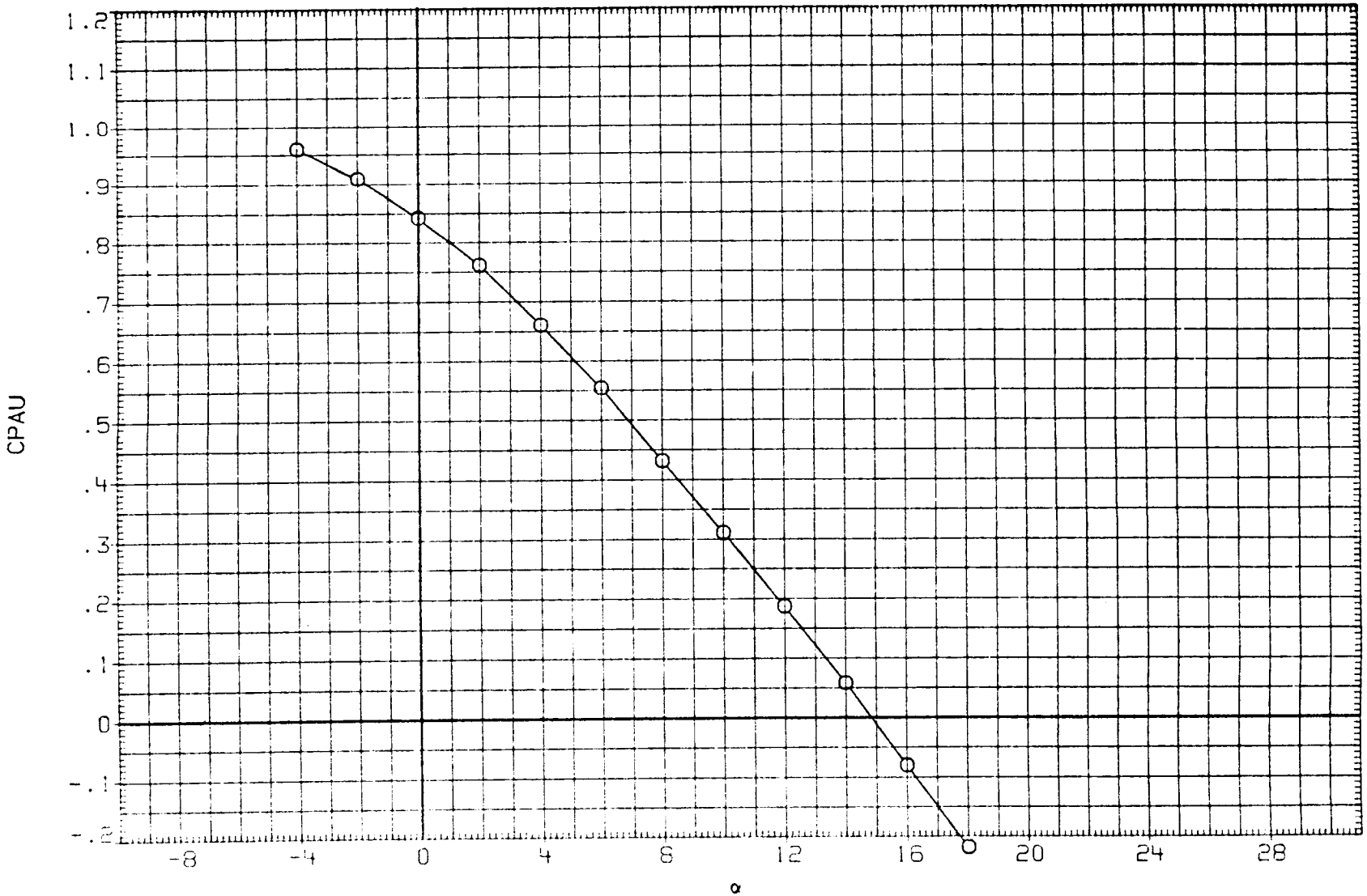


FIG. 46 0A232 SIDE PROBE CPAU VERSUS ALPHA REPEATABILITY, INVERTED
DATA INTERPOLATED WITH MACH, ALPHA PROBE ON RIGHT SIDE

(B) MACH = .25 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRJ11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRI13	□	DATA NOT AVAILABLE	.000	180.000

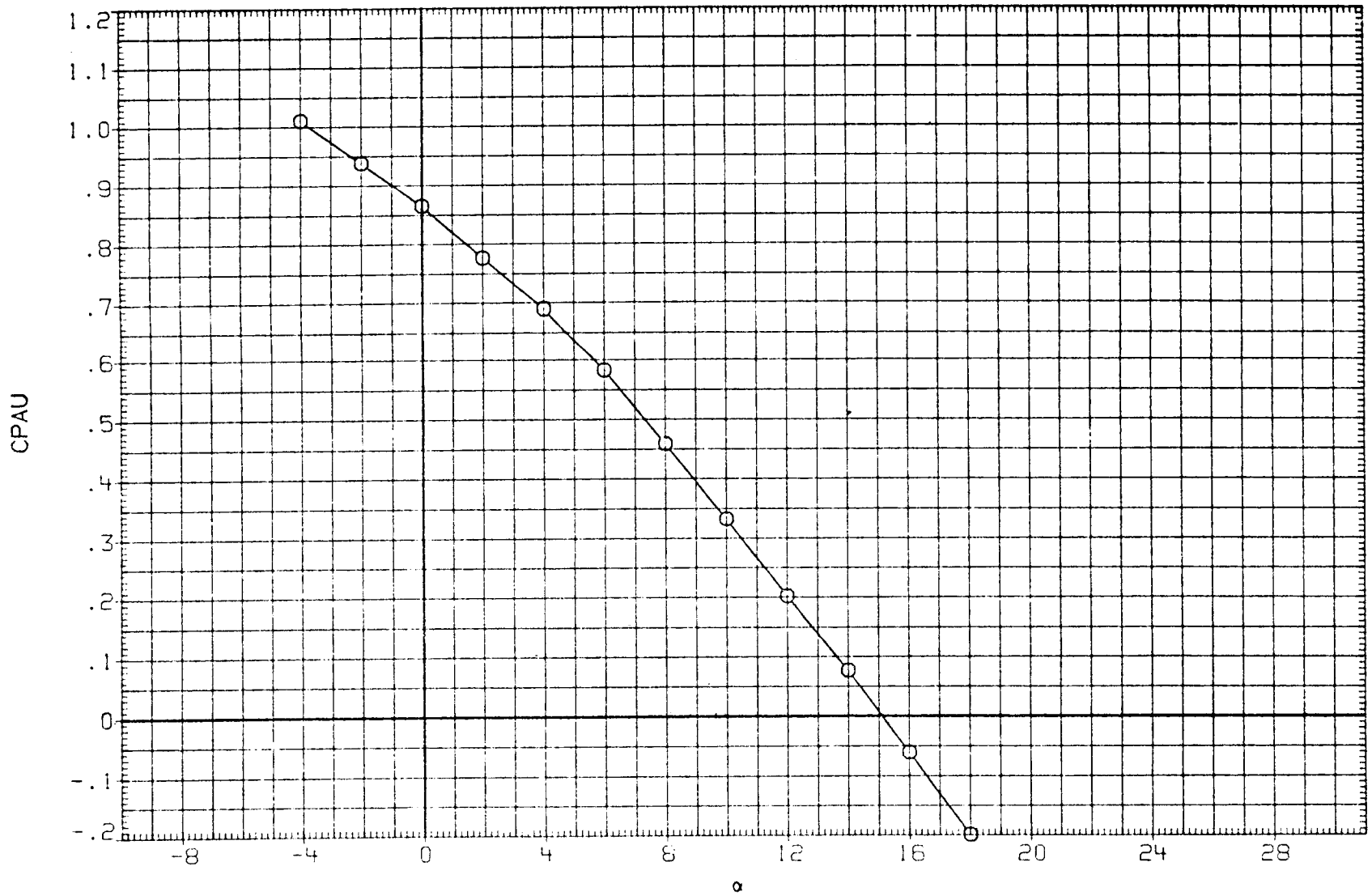


FIG. 46 0A232 SIDE PROBE CPAU VERSUS ALPHA REPEATABILITY, INVERTED PROBE ON RIGHT SIDE
DATA INTERPOLATED WITH MACH, ALPHA

(C)MACH = .40 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRJ11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRI13	□	DATA NOT AVAILABLE	.000	180.000

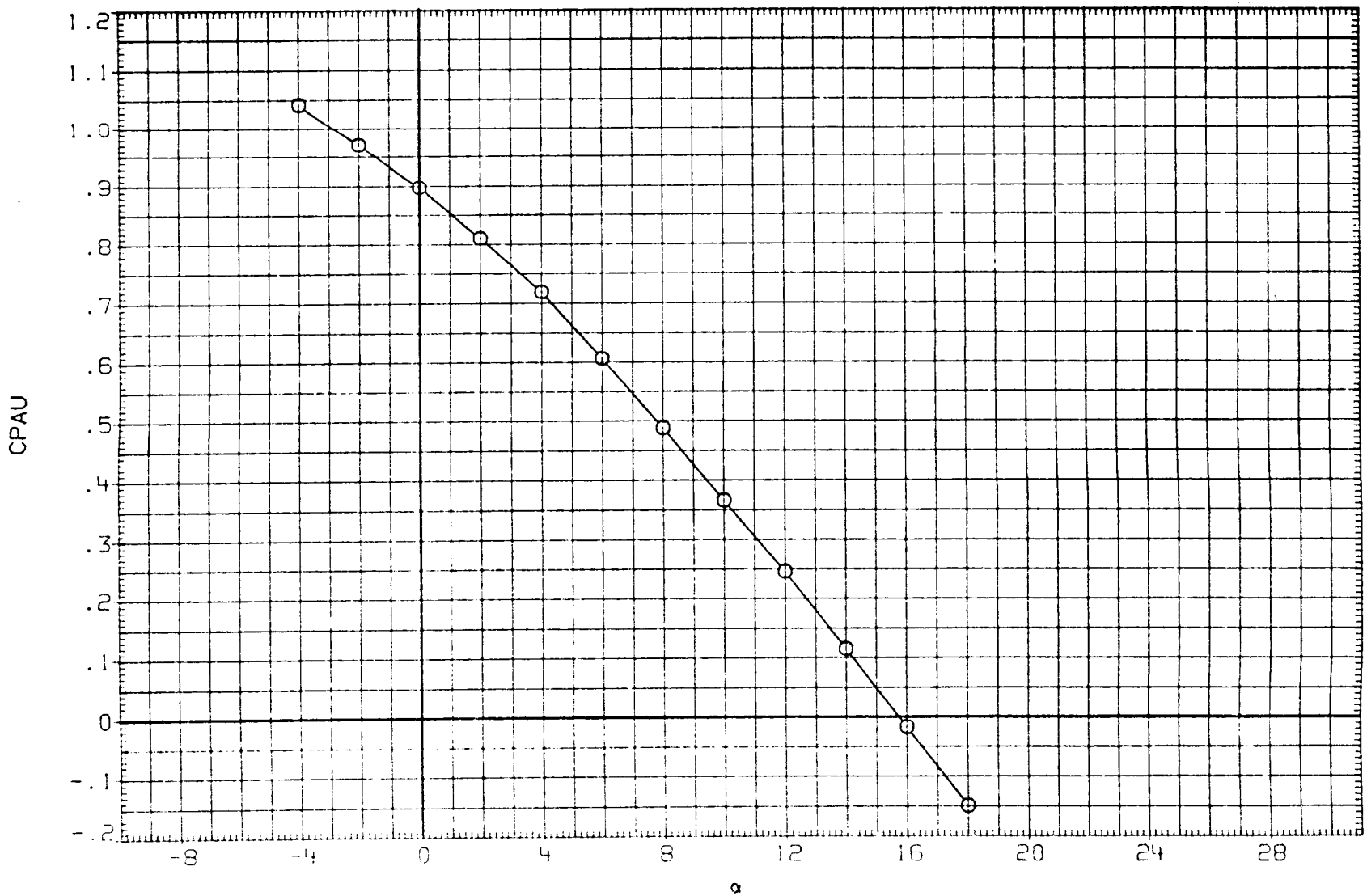


FIG. 46 0A232 SIDE PROBE CPAU VERSUS ALPHA REPEATABILITY, INVERTED
DATA INTERPOLATED WITH MACH, ALPHA PROBE ON RIGHT SIDE

(D) MACH = .60 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION		BETA	PHI
AVRJ11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A		.000	.000
AVRI13	□	0A232 AEDC 16T TF431 LA .2P/S RA .2A	INV	.000	180.000

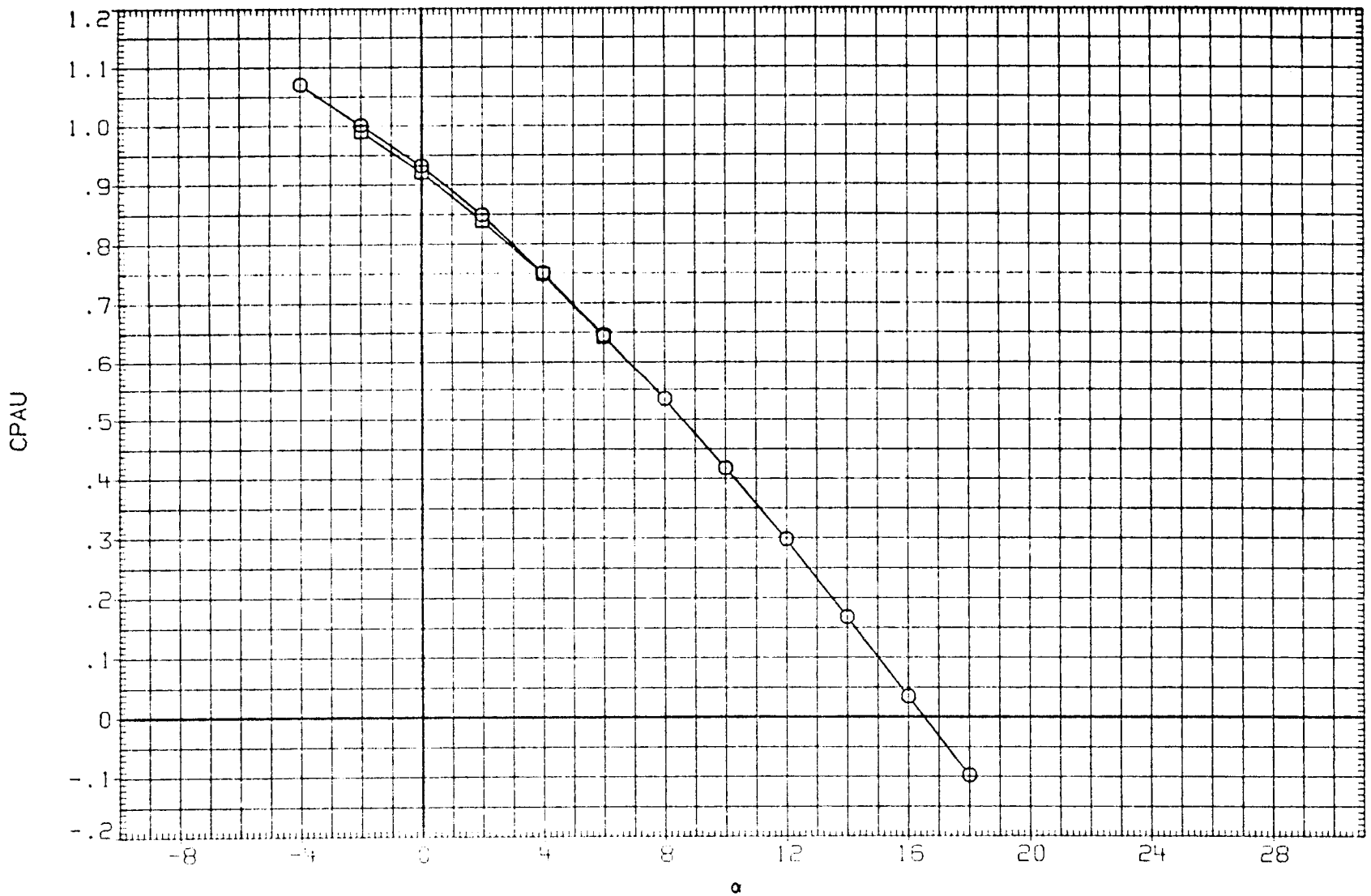


FIG. 46 0A232 SIDE PROBE CPAU VERSUS ALPHA REPEATABILITY, INVERTED PROBE ON RIGHT SIDE
DATA INTERPOLATED WITH MACH, ALPHA

(E)MACH = .70 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRJ11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRI13	□	DATA NOT AVAILABLE	.000	180.000

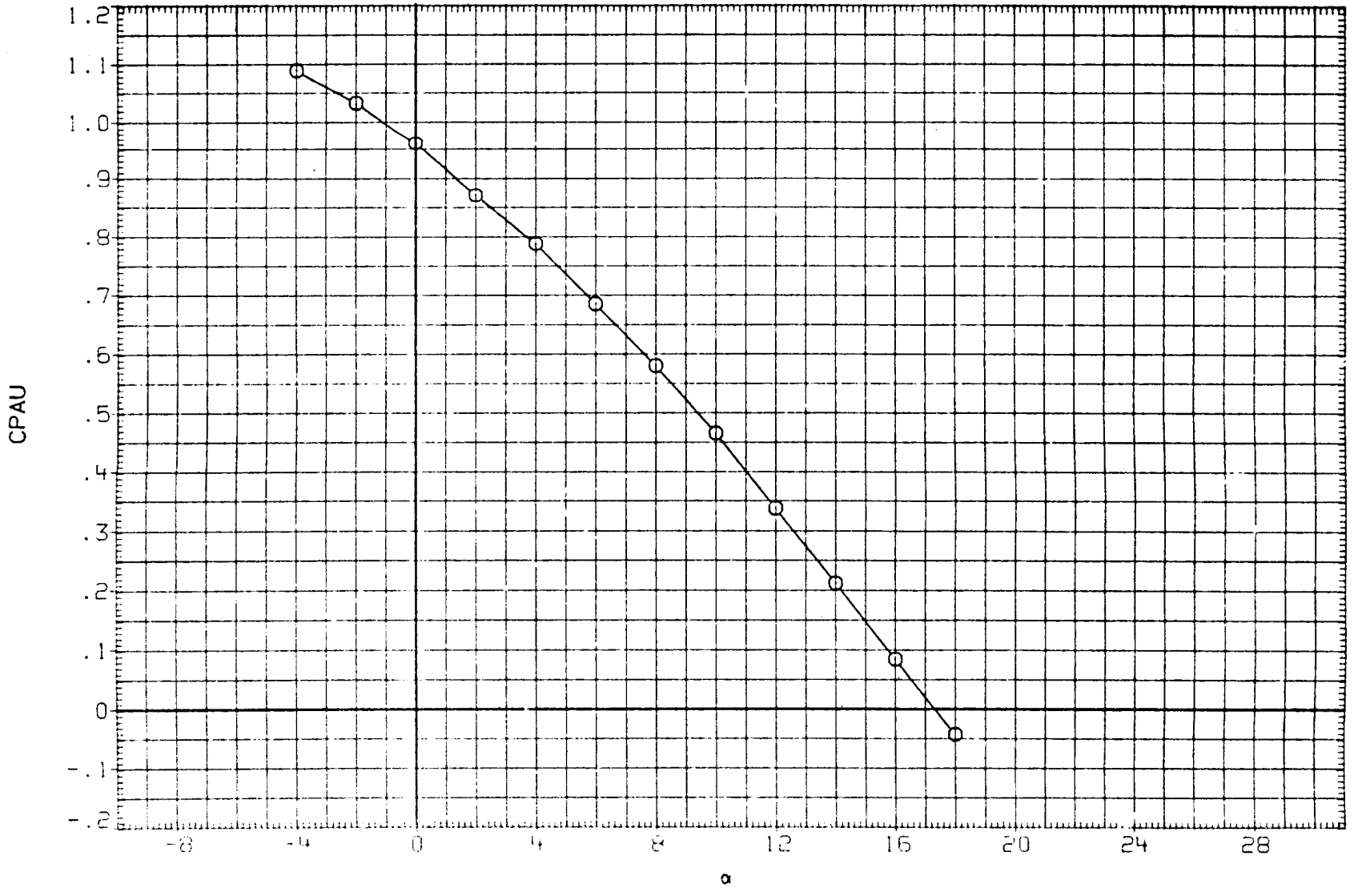


FIG. 46 0A232 SIDE PROBE CPAU VERSUS ALPHA REPEATABILITY, INVERTED PROBE ON RIGHT SIDE
DATA INTERPOLATED WITH MACH, ALPHA

(F)MACH = .80 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRJ11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRI13	□	DATA NOT AVAILABLE	.000	180.000

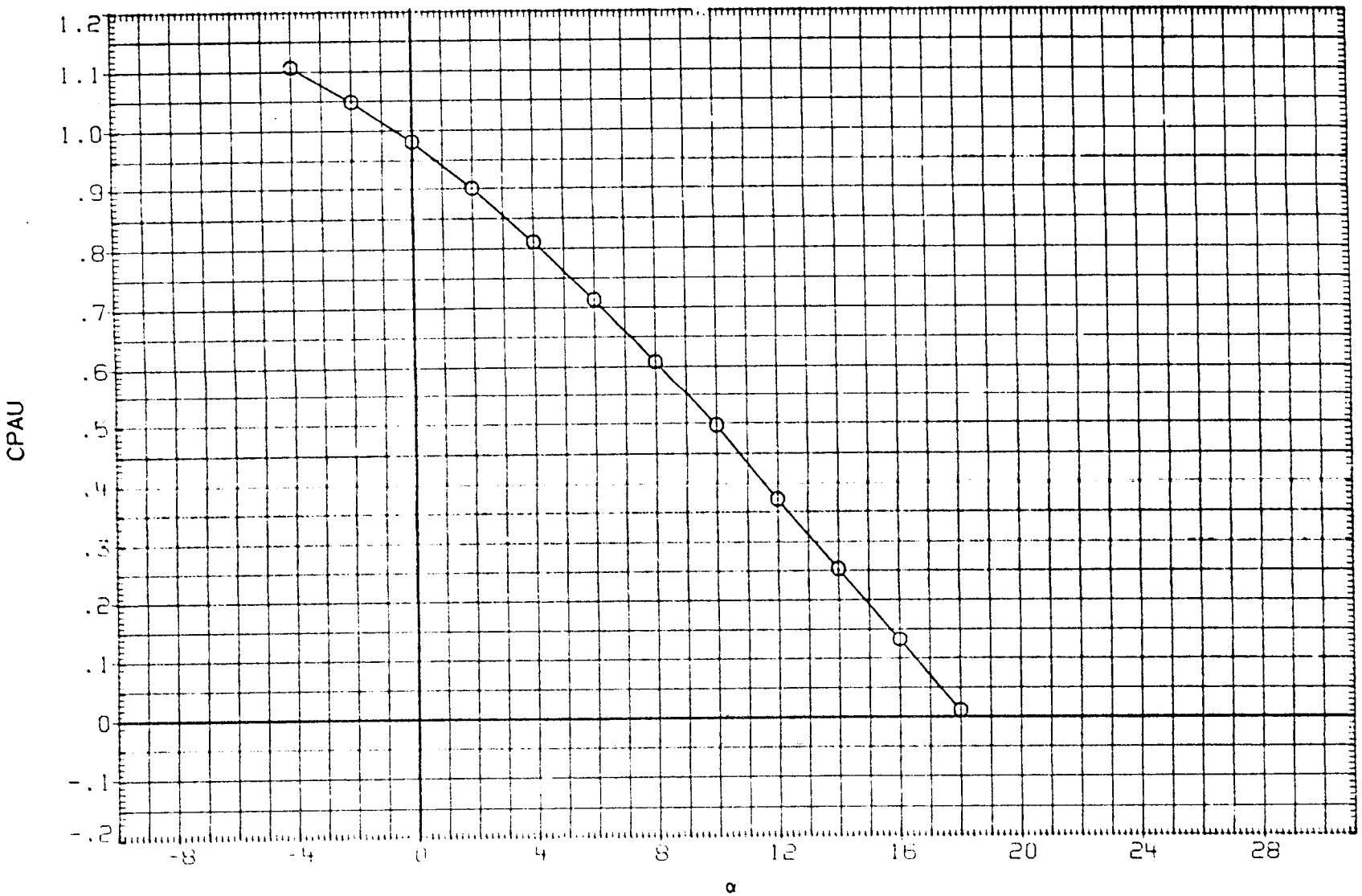


FIG. 46 0A232 SIDE PROBE CPAU VERSUS ALPHA REPEATABILITY, INVERTED
DATA INTERPOLATED WITH MACH, ALPHA PROBE ON RIGHT SIDE

(G)MACH = .85 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRJ11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRI13	□	DATA NOT AVAILABLE	.000	180.000

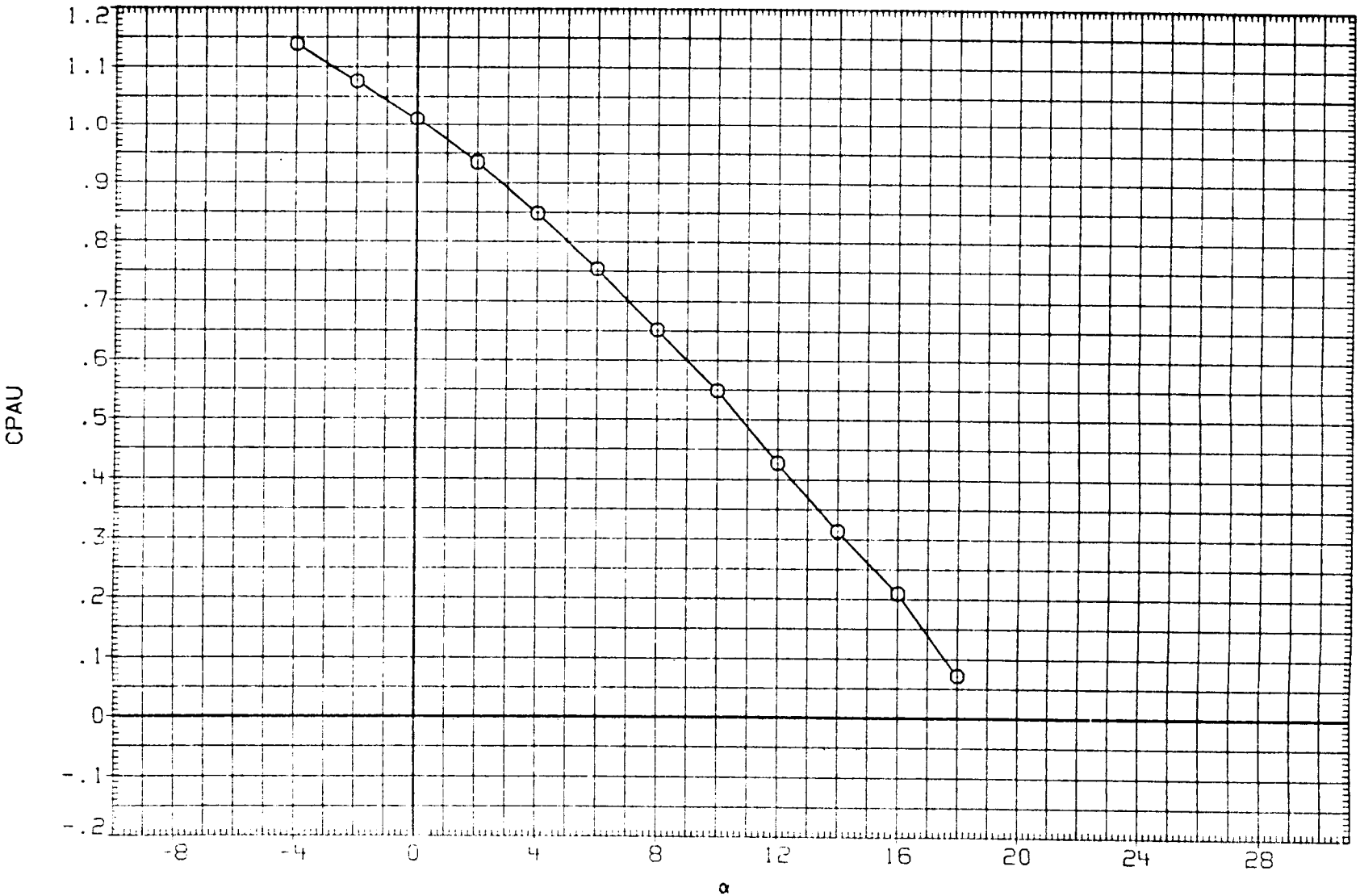


FIG. 46 0A232 SIDE PROBE CPAU VERSUS ALPHA REPEATABILITY, INVERTED
DATA INTERPOLATED WITH MACH, ALPHA PROBE ON RIGHT SIDE

(H)MACH = .90 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRJ11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRI13	□	DATA NOT AVAILABLE	.000	180.000

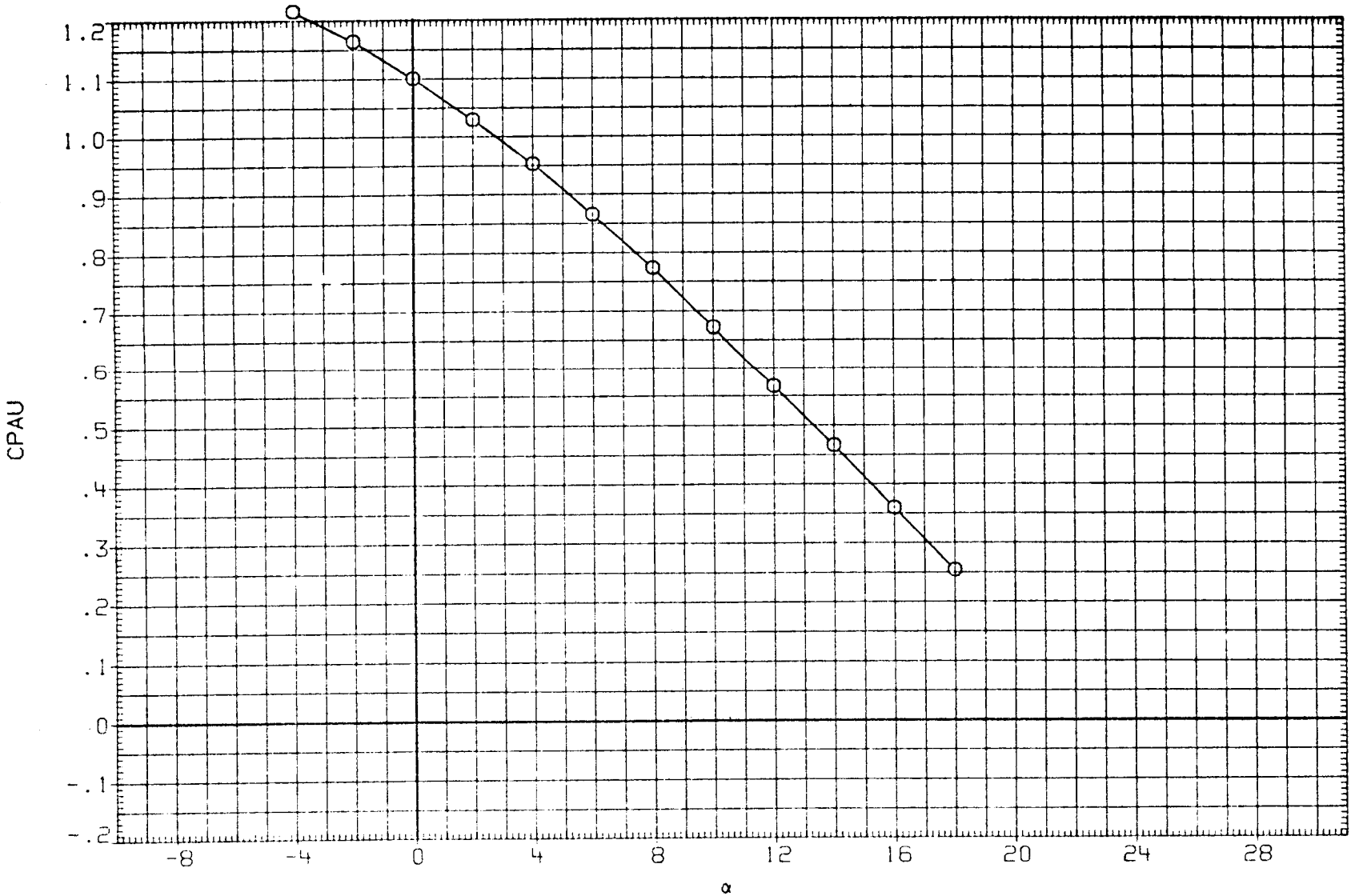


FIG. 46 0A232 SIDE PROBE CPAU VERSUS ALPHA REPEATABILITY, INVERTED PROBE ON RIGHT SIDE
DATA INTERPOLATED WITH MACH, ALPHA

(I) MACH = 1.05 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRJ11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVR113	□	DATA NOT AVAILABLE	.000	180.000

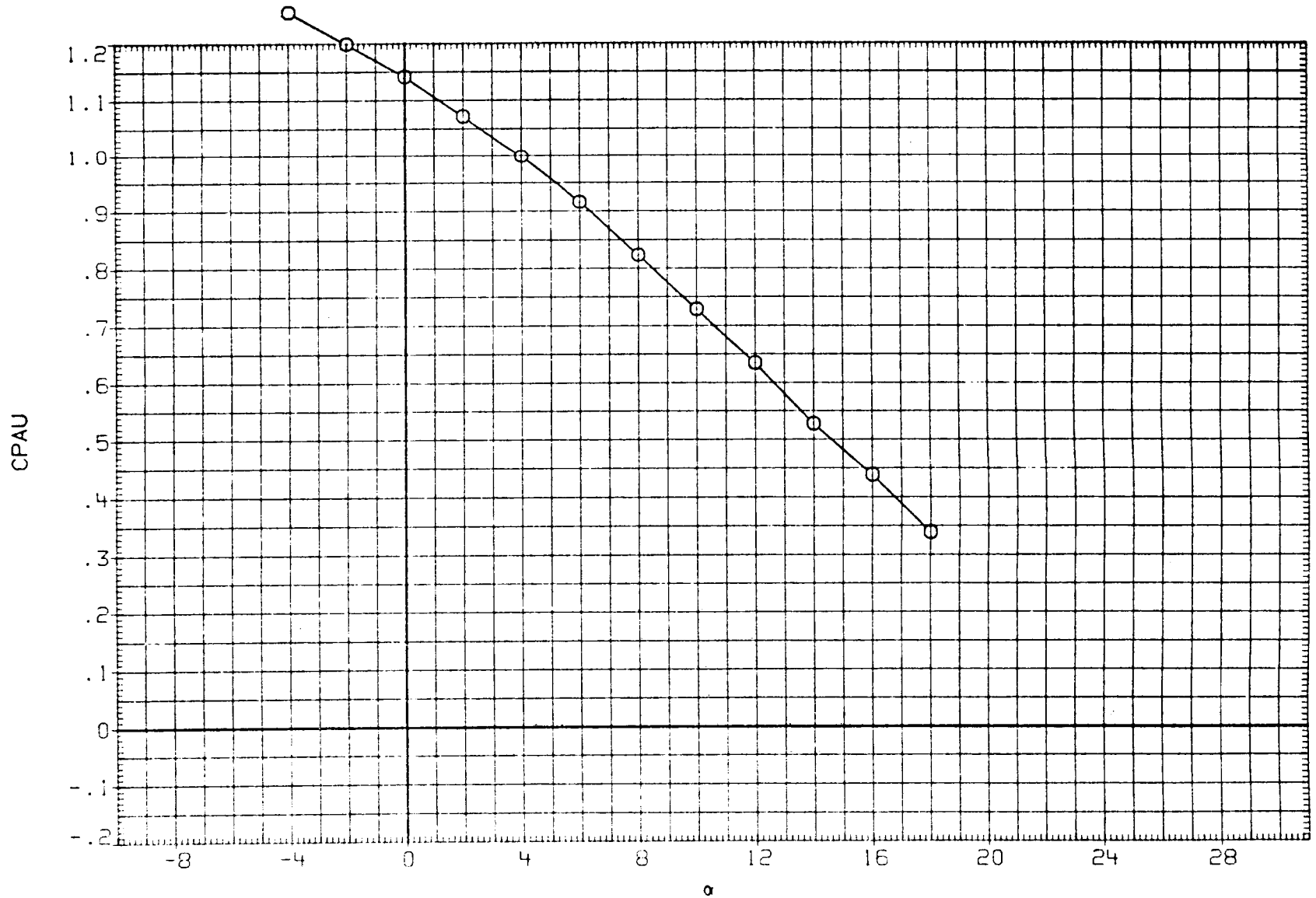


FIG. 46 0A232 SIDE PROBE CPAU VERSUS ALPHA REPEATABILITY, INVERTED
DATA INTERPOLATED WITH MACH, ALPHA PROBE ON RIGHT SIDE

(J)MACH = 1.10 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRJ11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVR113	□	DATA NOT AVAILABLE	.000	180.000

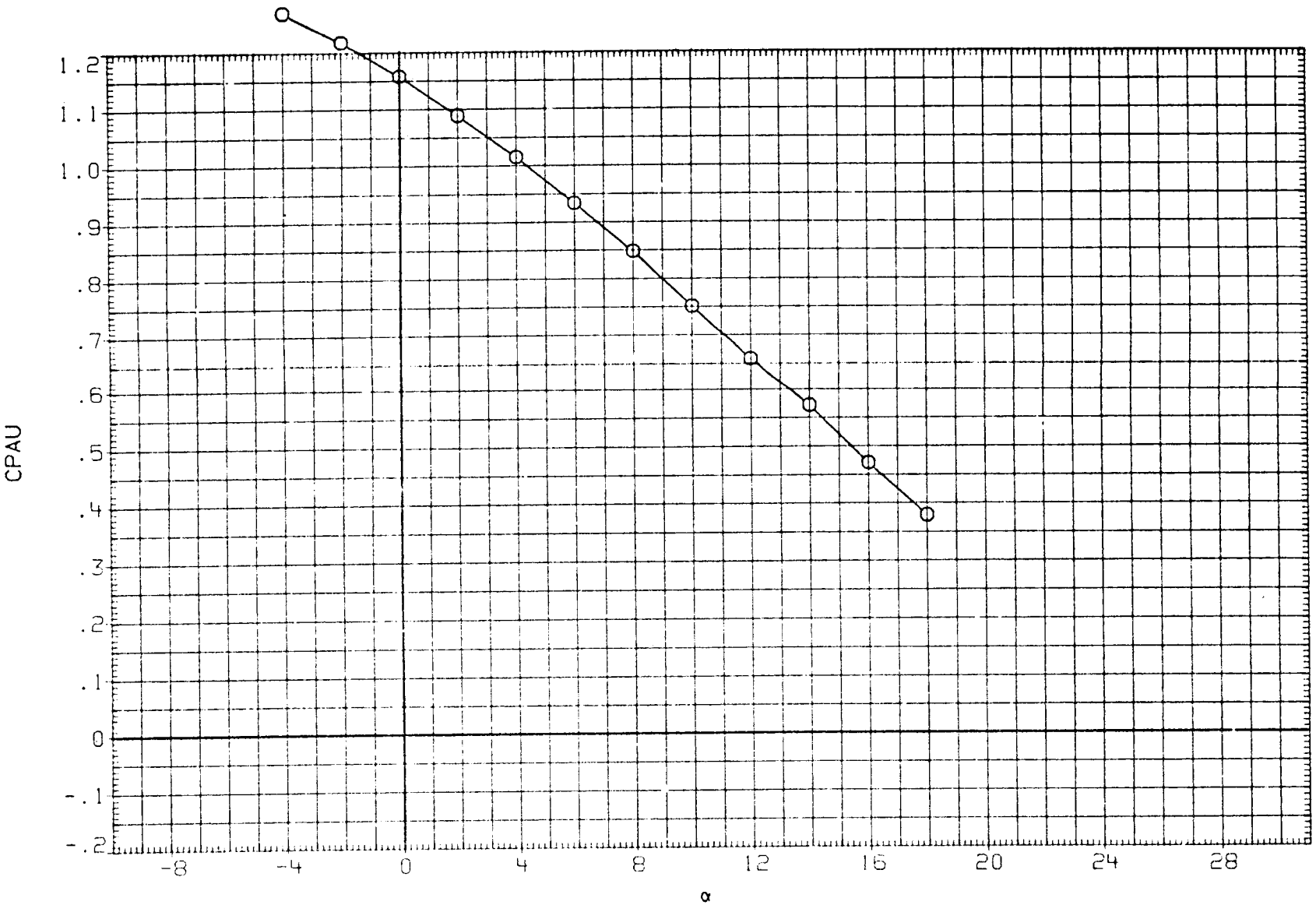


FIG. 46 0A232 SIDE PROBE CPAU VERSUS ALPHA REPEATABILITY, INVERTED
DATA INTERPOLATED WITH MACH, ALPHA PROBE ON RIGHT SIDE

(K) MACH = 1.15 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRJ11	○	0A232 AEDC 16T TF431 LA .2P/S RA .2A	.000	.000
AVRI13	□	DATA NOT AVAILABLE	.000	180.000

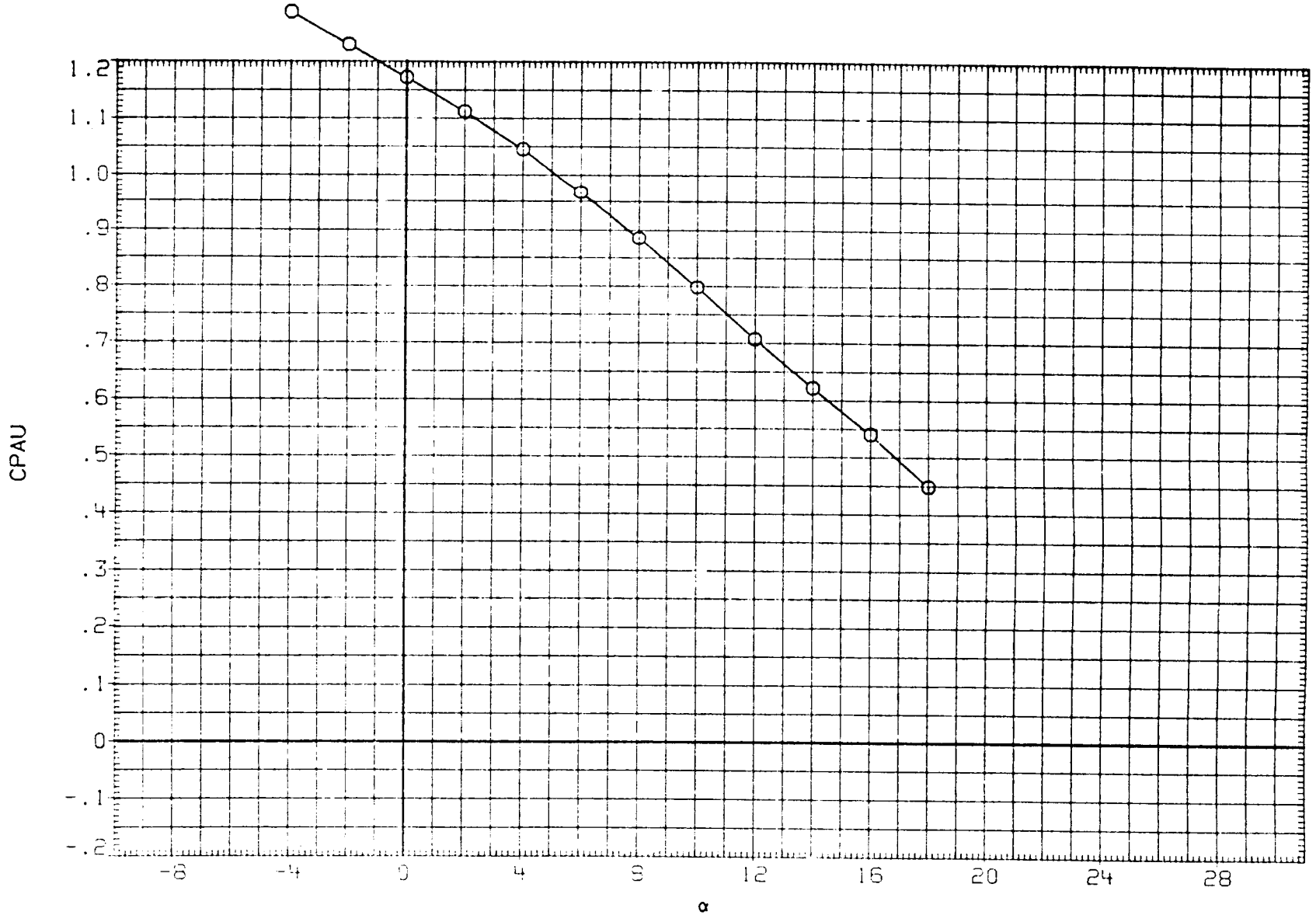


FIG. 46 0A232 SIDE PROBE CPAU VERSUS ALPHA REPEATABILITY, INVERTED PROBE ON RIGHT SIDE
DATA INTERPOLATED WITH MACH, ALPHA

(L)MACH = 1.20 DATE 09 AUG 78

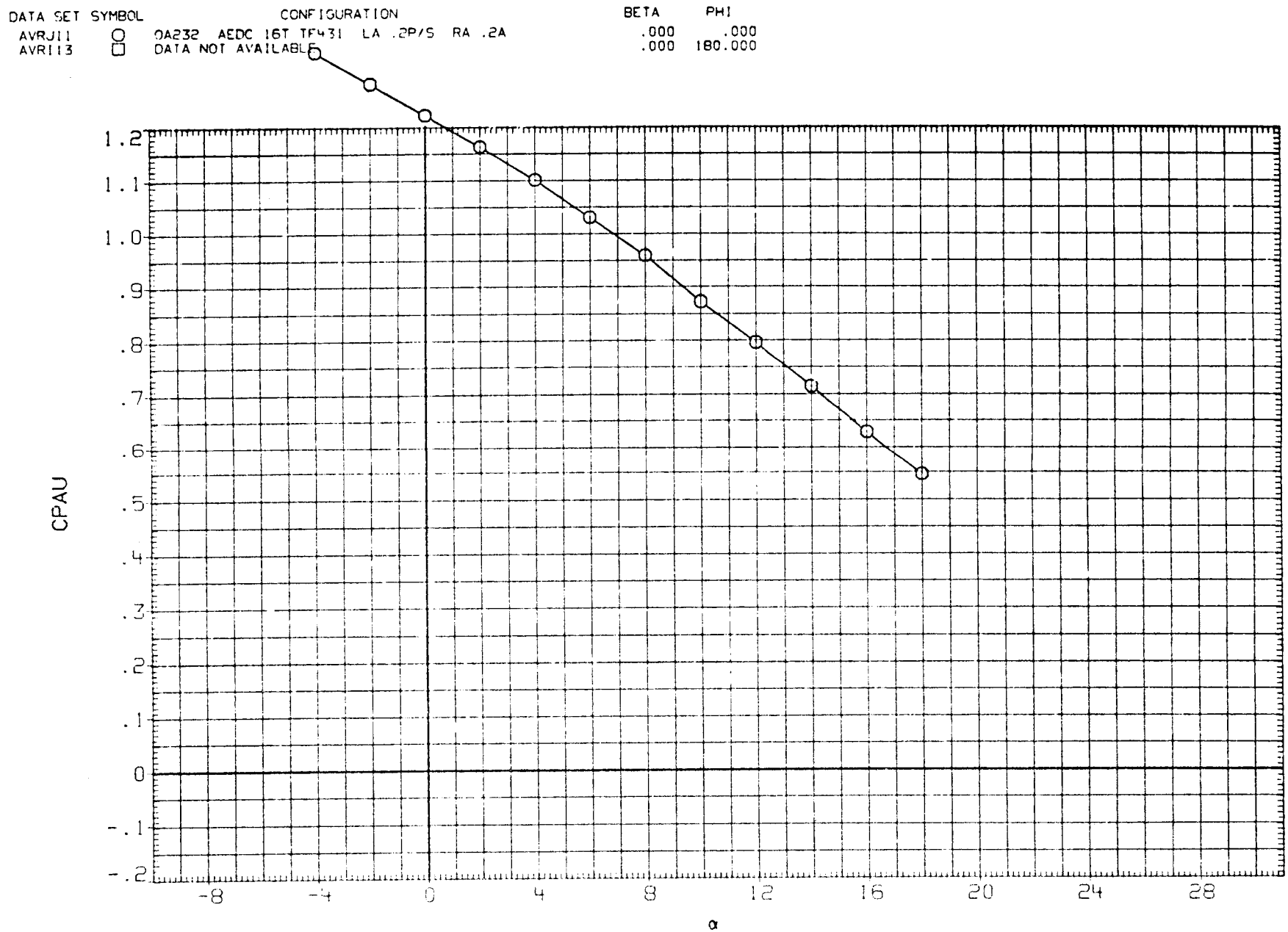


FIG. 46 0A232 SIDE PROBE CPAU VERSUS ALPHA REPEATABILITY, INVERTED
DATA INTERPOLATED WITH MACH, ALPHA PROBE ON RIGHT SIDE

(M)MACH = 1.30 DATE 09 AUG 78

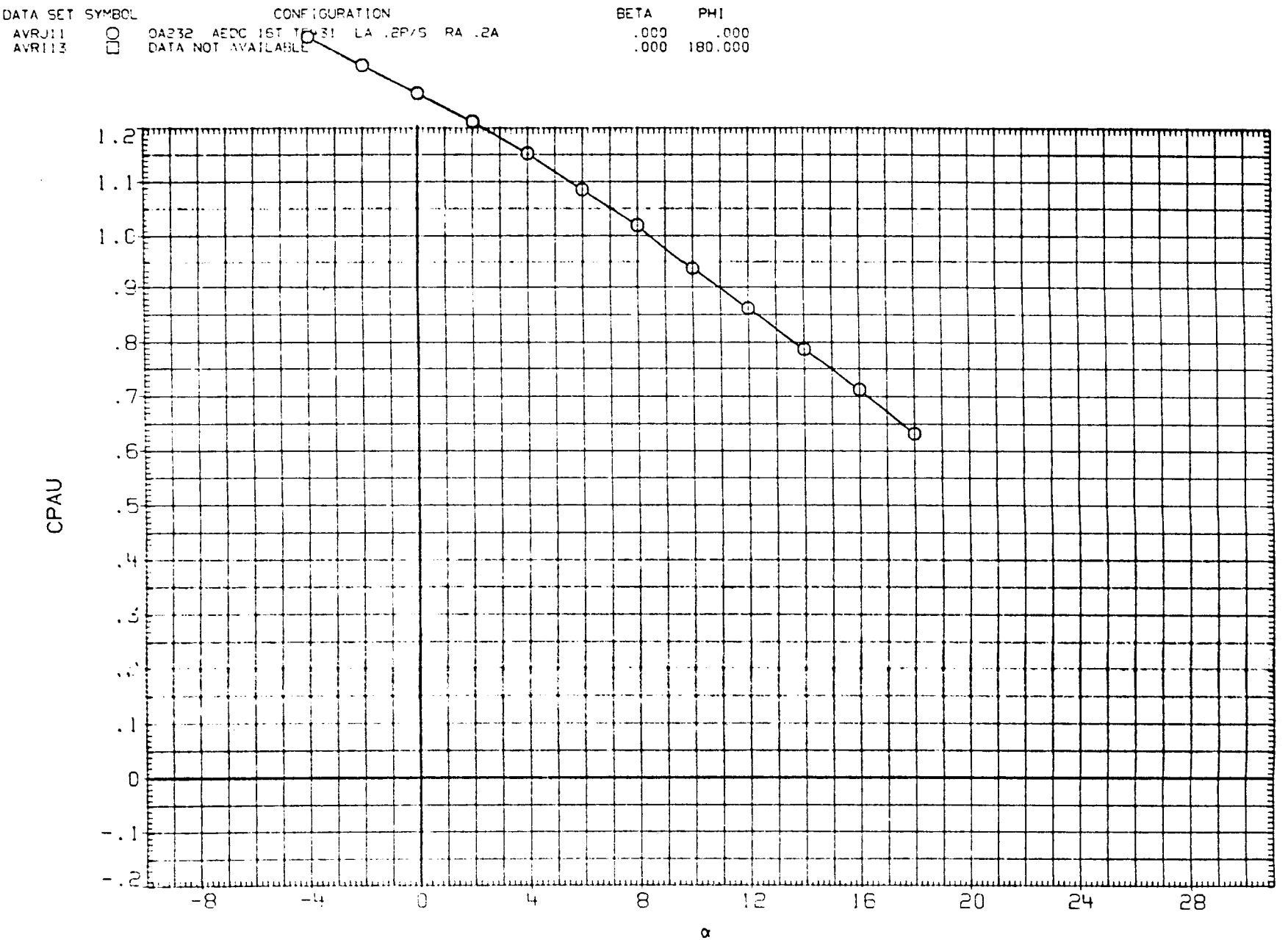


FIG. 46 OA232 SIDE PROBE CPAU VERSUS ALPHA REPEATABILITY, INVERTED
DATA INTERPOLATED WITH MACH, ALPHA PROBE ON RIGHT SIDE

(N)MACH = 1.40 DATE 09 AUG 78

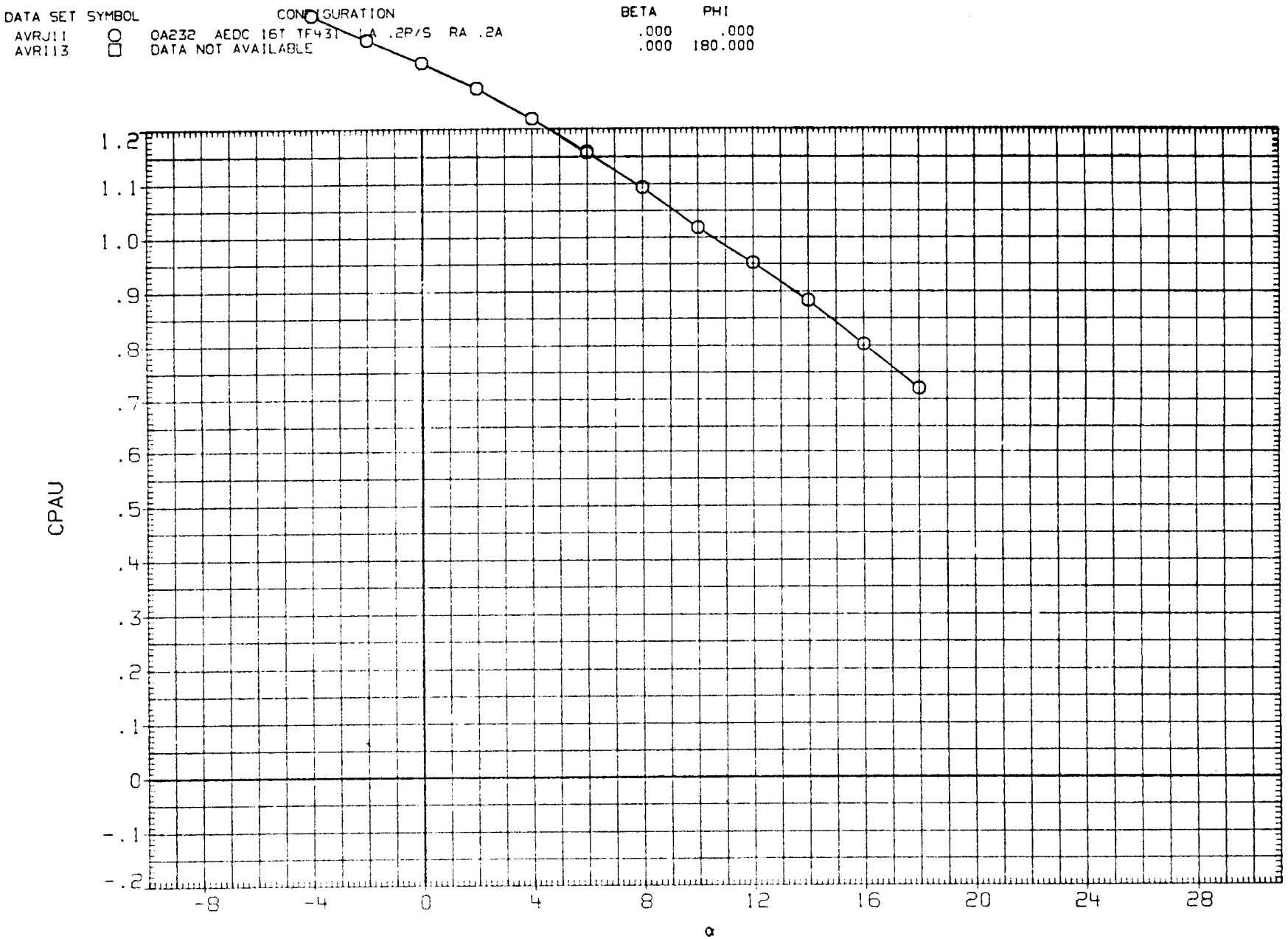


FIG. 46 OA232 SIDE PROBE CPAU VERSUS ALPHA REPEATABILITY, INVERTED
DATA INTERPOLATED WITH MACH, ALPHA PROBE ON RIGHT SIDE

(O) MACH = 1.55 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION		BETA	PHI
AVRJ14	○	0A232 AEDC 1ST TF431 LA .2A	REN.IS	.000	.000
AVRI17	□	0A232 AEDC 1ST TF431 LA .2A	REN.IS FTP	.000	.000
AVRI18	◇	DATA NOT AVAILABLE		.000	.000
AVRI19	△	DATA NOT AVAILABLE		.000	.000
AVRI20	▽	DATA NOT AVAILABLE		.000	.000

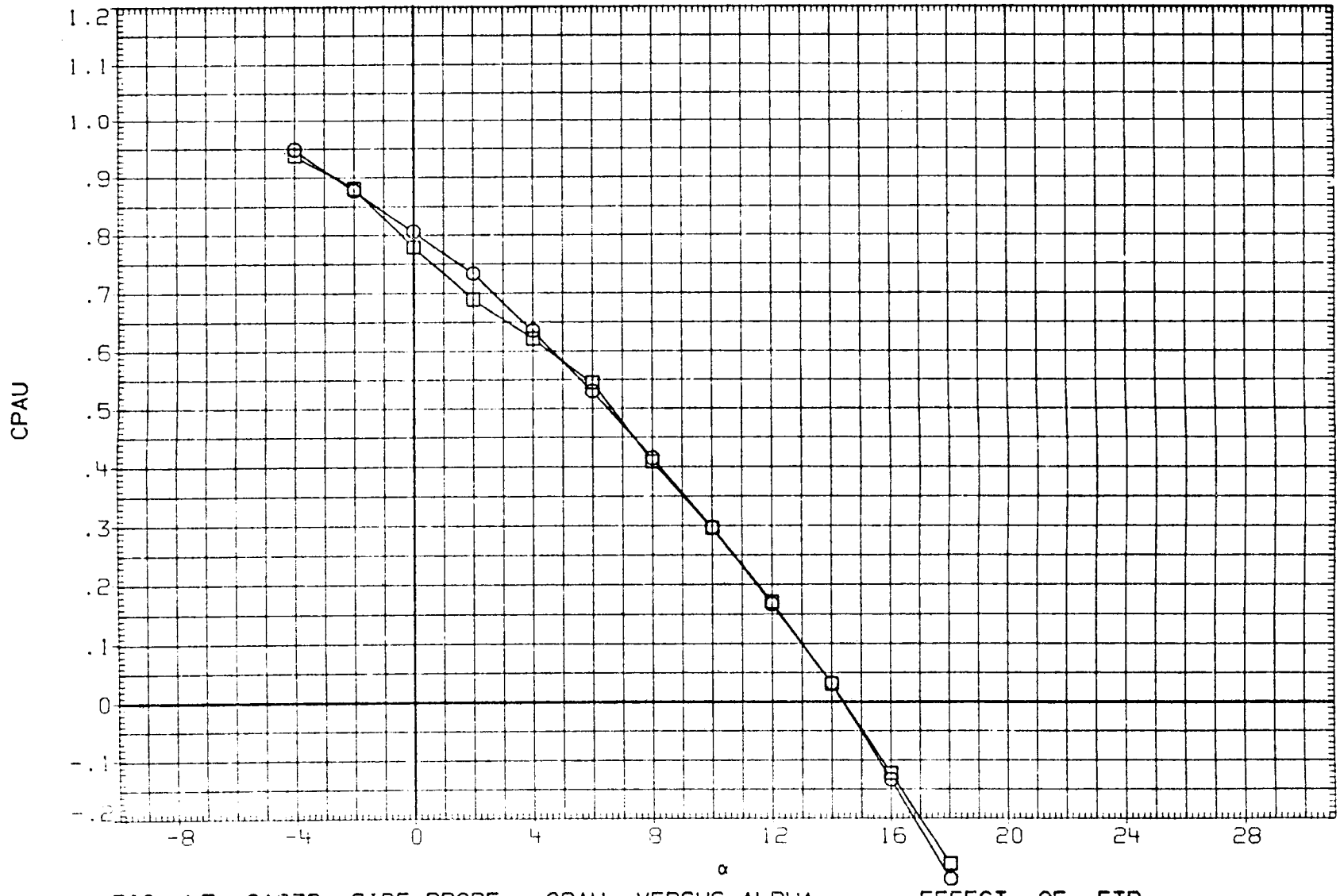


FIG. 47 0A232 SIDE PROBE CPAU VERSUS ALPHA EFFECT OF FTP
DATA INTERPOLATED WITH MACH, ALPHA PROBE ON LEFT SIDE

(A) MACH = .20 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION		BETA	PHI
AVRJ14	○	OA232 AEDC 16T TF431 LA .2A	RFN.1S	.000	.000
AVR117	□	DATA NOT AVAILABLE		.000	.000
AVR118	◇	OA232 AEDC 16T TF431 LA .2A	RFN.1S FTP	.000	.000
AVR119	◁▷	DATA NOT AVAILABLE		.000	.000
AVR120	▷	DATA NOT AVAILABLE		.000	.000

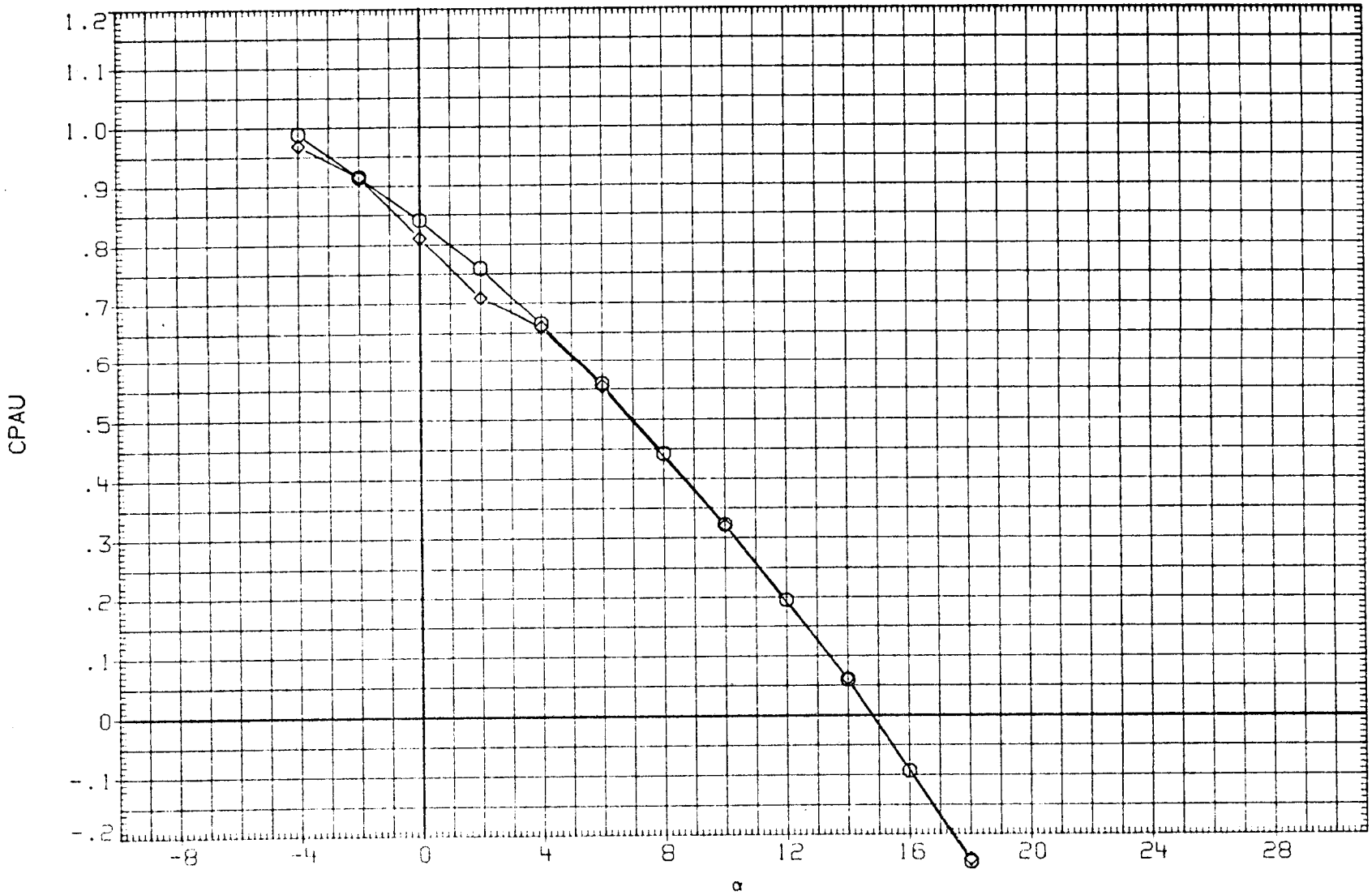


FIG. 47 OA232 SIDE PROBE CPAU VERSUS ALPHA EFFECT OF FTP
DATA INTERPOLATED WITH MACH, ALPHA PROBE ON LEFT SIDE

(B) MACH = .40 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION		BETA	PHI
AVRJ14	○	0A232 AEDC 16T TF431 LA .2A	RFN.1S	.000	.000
AVRI17	◇	DATA NOT AVAILABLE		.000	.000
AVRI18	□	DATA NOT AVAILABLE		.000	.000
AVRI19	△	0A232 AEDC 16T TF431 LA .2A	RFN.1S FTP	.000	.000
AVRI20	▽	DATA NOT AVAILABLE		.000	.000

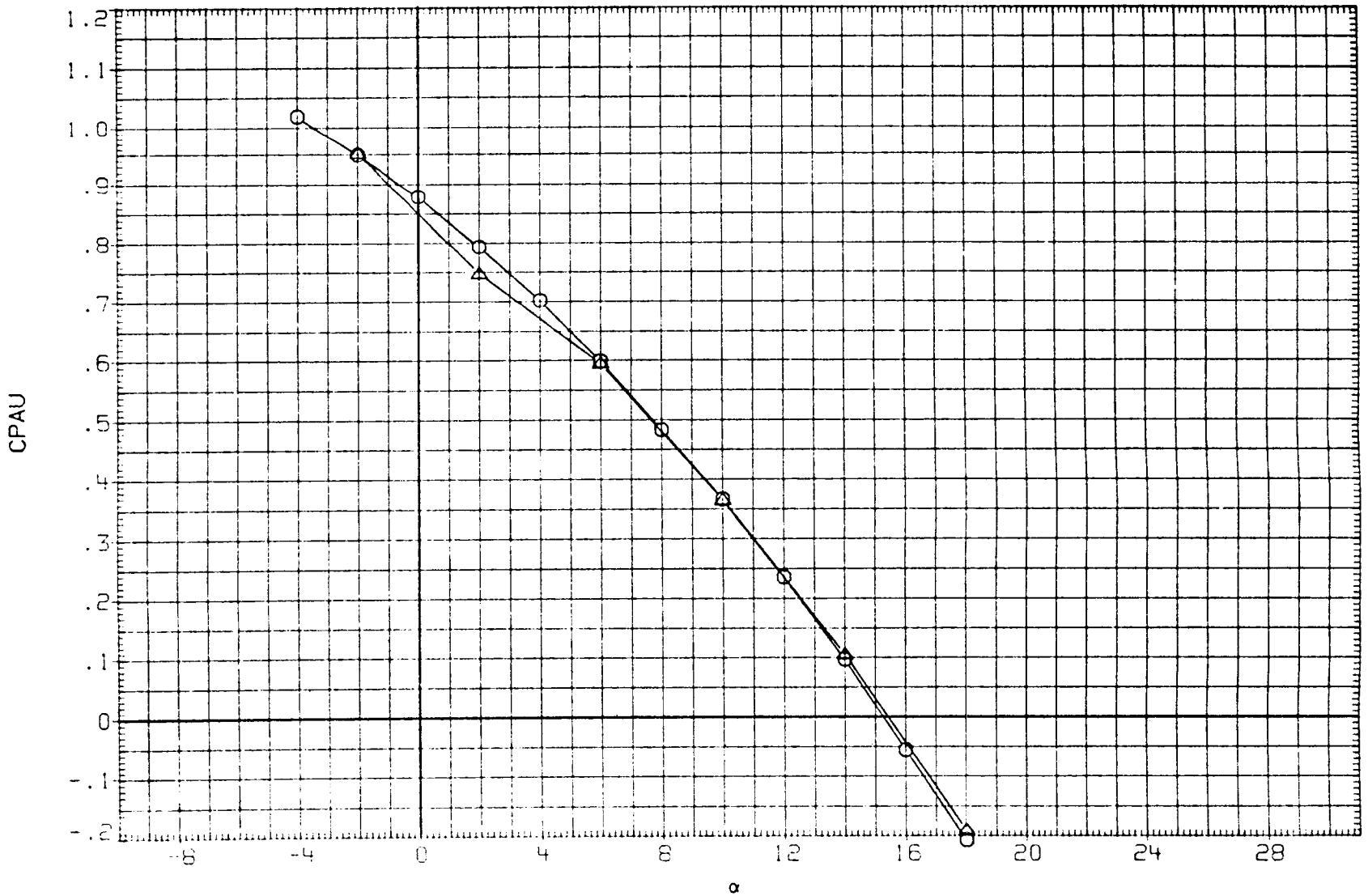


FIG. 47 0A232 SIDE PROBE CPAU VERSUS ALPHA EFFECT OF FTP
DATA INTERPOLATED WITH MACH, ALPHA PROBE ON LEFT SIDE

(C) MACH = .60 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION		BETA	PHI
AVRJ14	○	OA232 AEDC 16T TF431 LA .2A	RFN.1S	.000	.000
AVRI17	□	DATA NOT AVAILABLE		.000	.000
AVRI18	◇	DATA NOT AVAILABLE		.000	.000
AVRI19	△	OA232 AEDC 16T TF431 LA .2A	RFN.1S FTP	.000	.000
AVRI20	▷	DATA NOT AVAILABLE		.000	.000

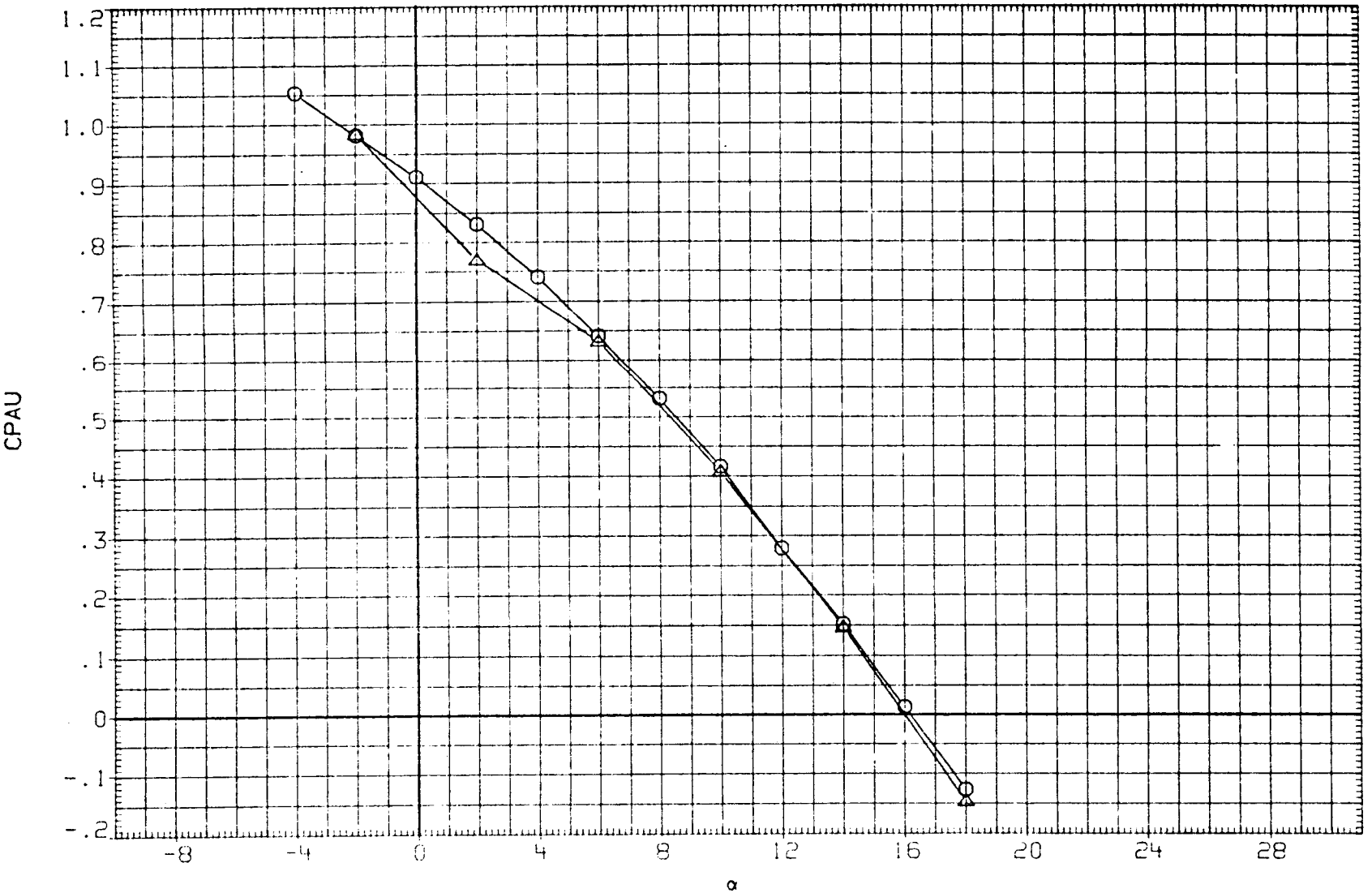


FIG. 47 OA232 SIDE PROBE CPAU VERSUS ALPHA EFFECT OF FTP
DATA INTERPOLATED WITH MACH, ALPHA PROBE ON LEFT SIDE

(D) MACH = .70 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRJ14	○	DATA NOT AVAILABLE	.000	.000
AVRI17	□	DATA NOT AVAILABLE	.000	.000
AVRI18	◇	DATA NOT AVAILABLE	.000	.000
AVRI19	△	DATA NOT AVAILABLE	.000	.000
AVRI20	▽	OA232 AEDC 16T TF431 LA .2A RFN.15 FTP	.000	.000

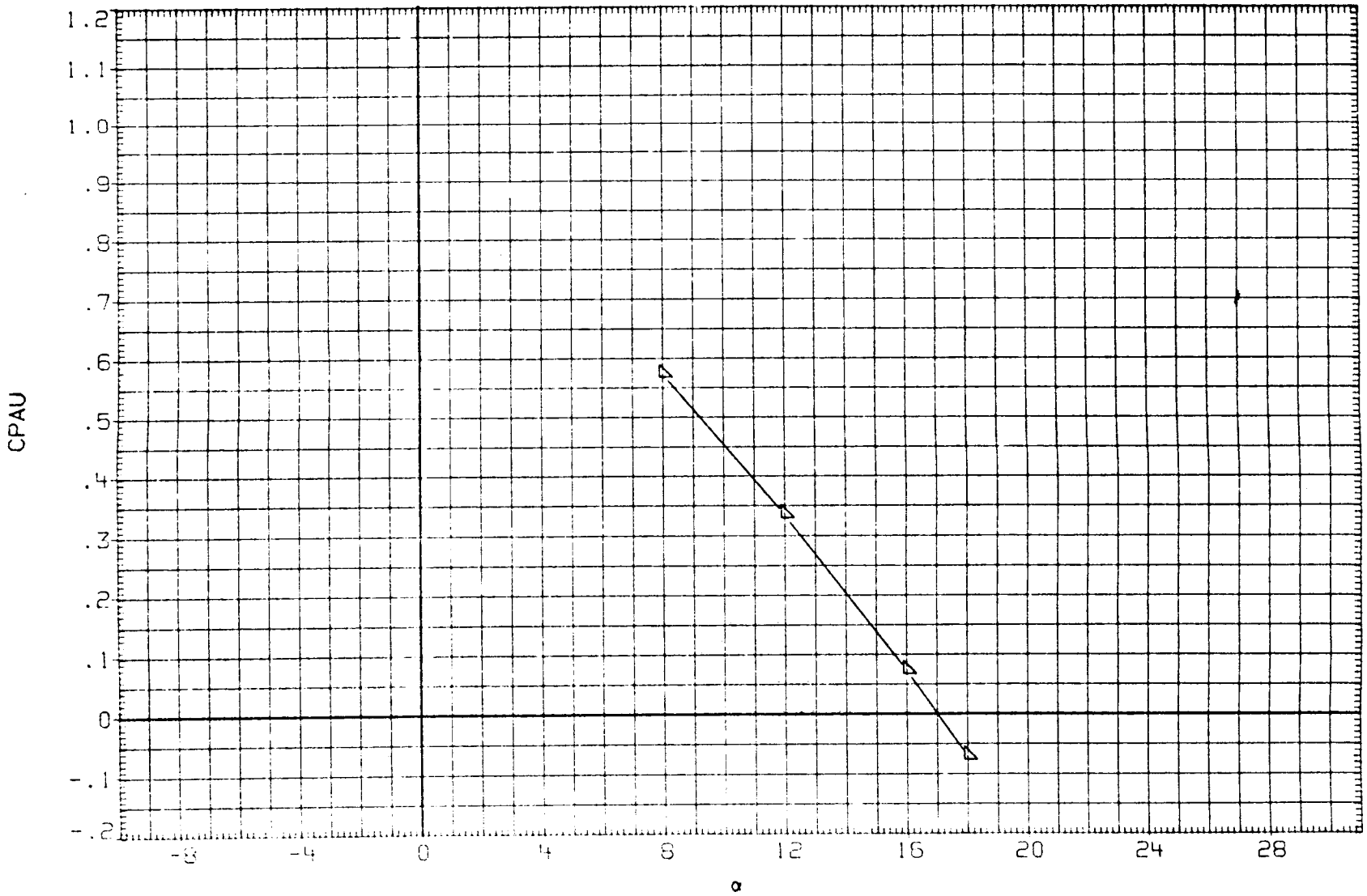


FIG. 47 OA232 SIDE PROBE CPAU VERSUS ALPHA EFFECT OF FTP
DATA INTERPOLATED WITH MACH, ALPHA PROBE ON LEFT SIDE

(E)MACH = .80 DATE 09 AUG 78

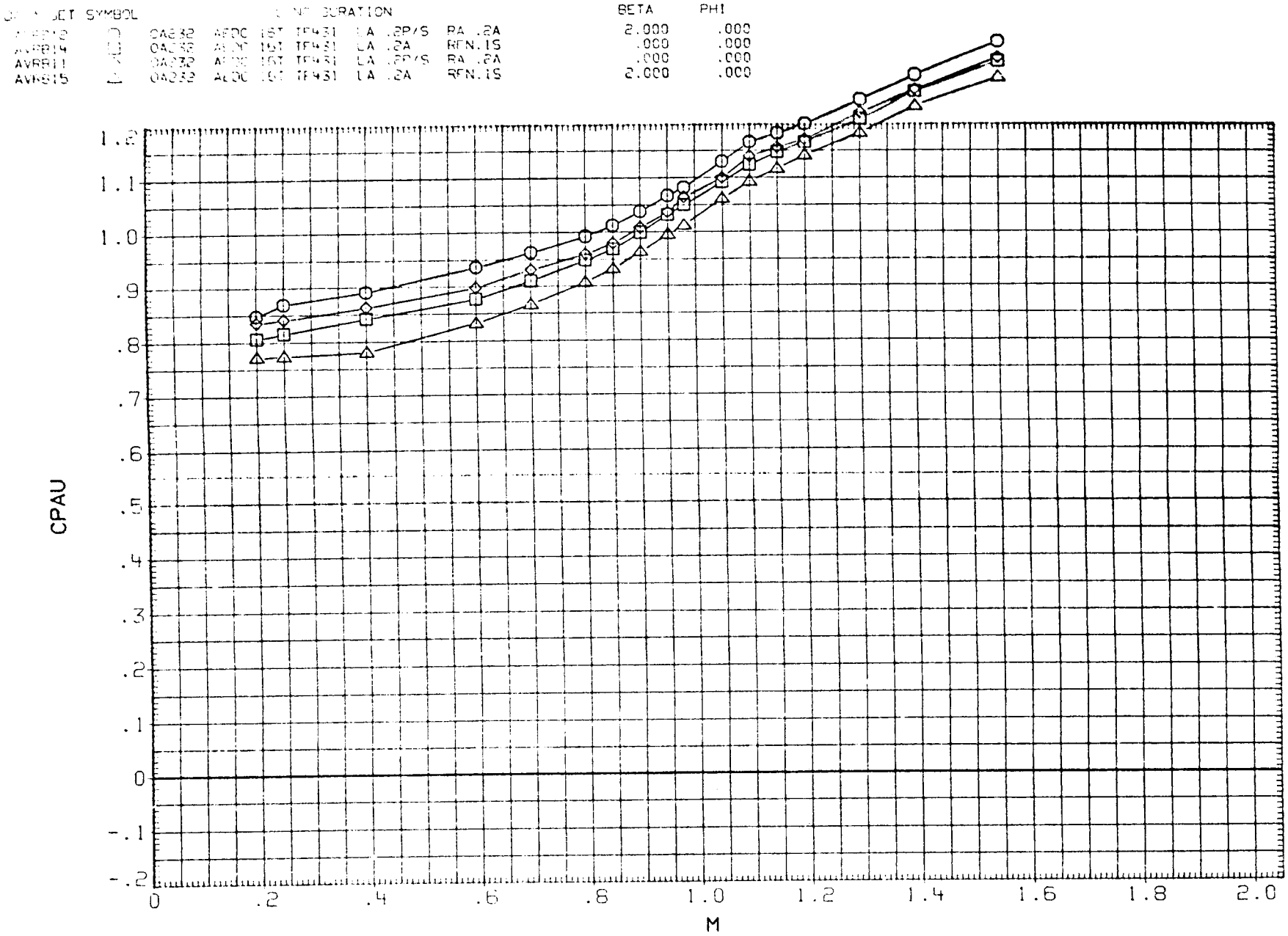


FIG. 48 0A232 SIDE PROBE CPAU VERSUS MACH NUMBER LEFT,RIGHT SIDES COMPARED
DATA INTERPOLATED WITH MACH,ALPHA,BETA

(A)ALPHA = .00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRB12	○	0A232 AEDC 16T TF43! LA .2P/S RA .2A	2.000	.000
AVRB14	□	0A232 AEDC 16T TF43! LA .2A RFN.1S	.000	.000
AVRB11	◇	0A232 AEDC 16T TF43! LA .2P/S RA .2A	.000	.000
AVRB15	△	0A232 AEDC 16T TF43! LA .2A RFN.1S	2.000	.000

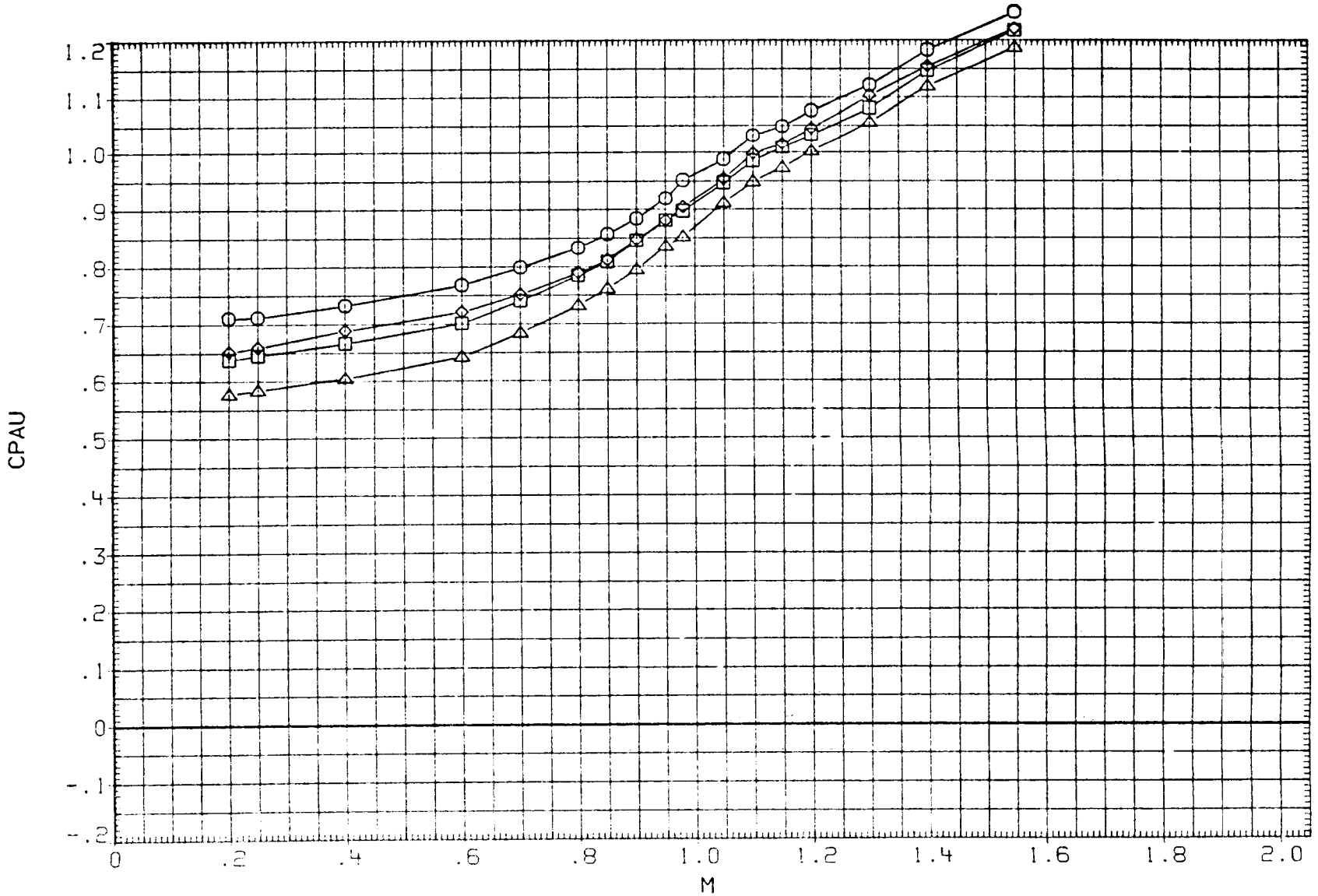


FIG. 48 0A232 SIDE PROBE CPAU VERSUS MACH NUMBER LEFT,RIGHT SIDES COMPARED
DATA INTERPOLATED WITH MACH,ALPHA,BETA

(B)ALPHA = 4.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVRB12	○	0A232	AEDC 16T TF431	LA .2P/S	RA .2A		2.000	.000
AVRB14	□	0A232	AEDC 16T TF431	LA .2A	RFN.1S		.000	.000
AVRB11	◇	0A232	AEDC 16T TF431	LA .2P/S	RA .2A		.000	.000
AVRB15	△	0A232	AEDC 16T TF431	LA .2A	RFN.1S		2.000	.000

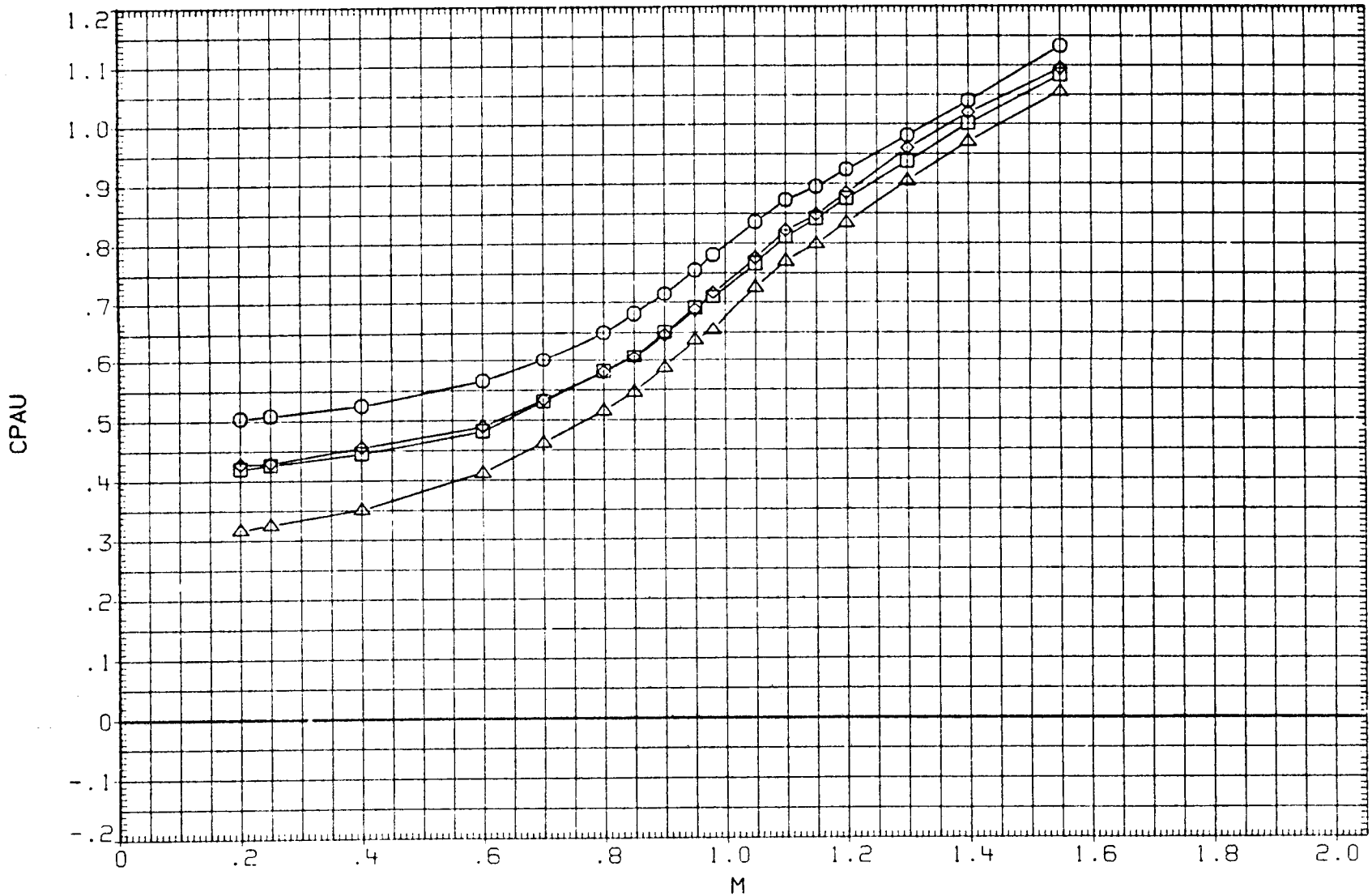


FIG. 48 0A232 SIDE PROBE CPAU VERSUS MACH NUMBER LEFT,RIGHT SIDES COMPARED
DATA INTERPOLATED WITH MACH,ALPHA,BETA

(C)ALPHA = 8.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVRB12	○	0A232	AEDC	16T	TF431	LA .2P/S RA .2A	2.000	.000
AVRB14	□	0A232	AEDC	16T	TF431	LA .2A RFN.1S	.000	.000
AVRB11	◇	0A232	AEDC	16T	TF431	LA .2P/S RA .2A	.000	.000
AVRB15	△	0A232	AEDC	16T	TF431	LA .2A RFN.1S	2.000	.000

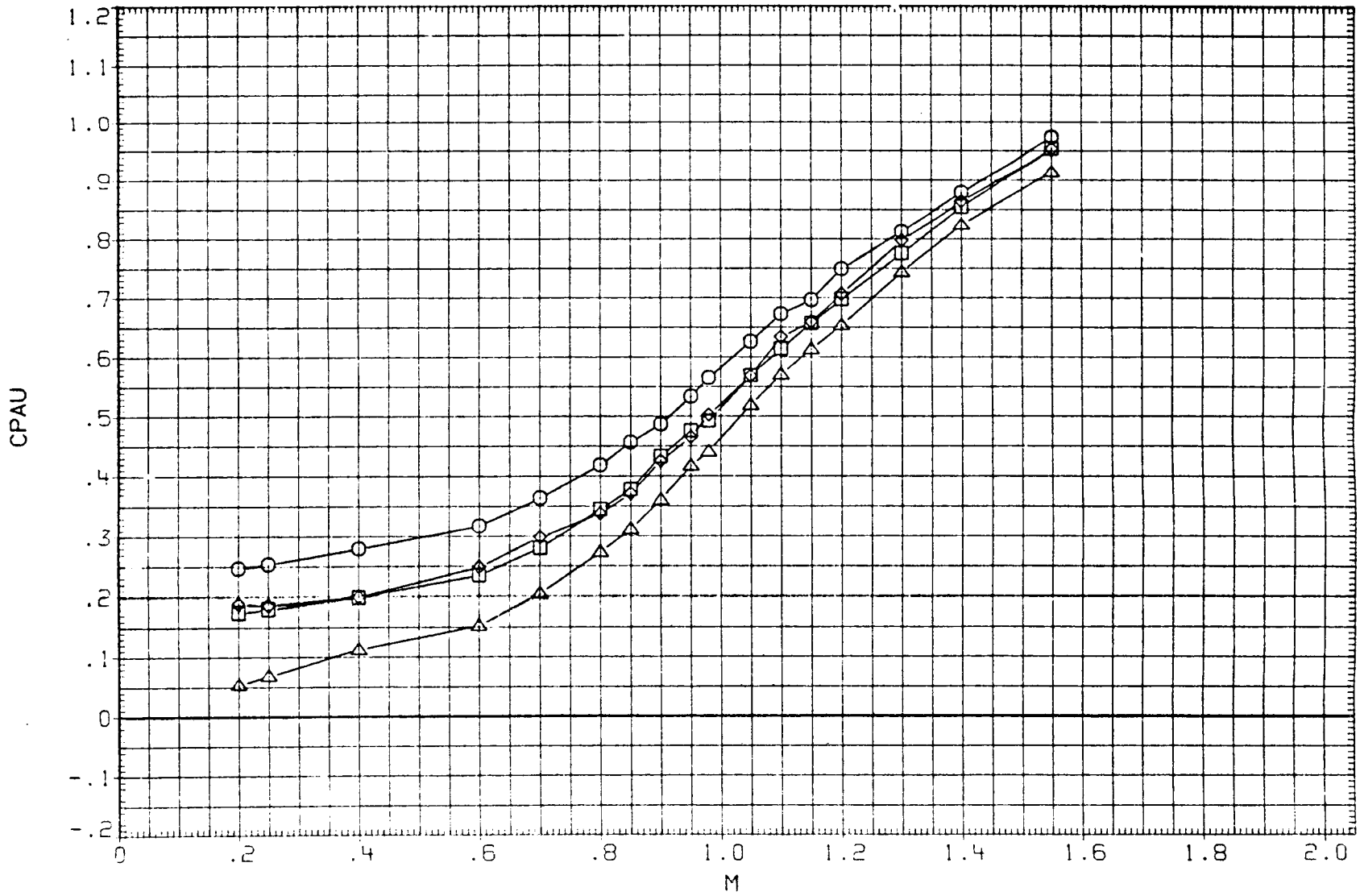


FIG. 48 0A232 SIDE PROBE CPAU VERSUS MACH NUMBER LEFT,RIGHT SIDES COMPARED
DATA INTERPOLATED WITH MACH,ALPHA,BETA

(D)ALPHA = 12.00 DATE 09 AUG 78

DATA REF	SYMBOL	CONFIGURATION					BETA	PHI
AVRB13	○	0A232	AEDC 16T TF431	LA .2P/S	RA .2A		2.000	.000
AVRB14	□	0A232	AEDC 16T TF431	LA .2A	RFN.1S		.000	.000
AVRB11	◇	0A232	AEDC 16T TF431	LA .2P/S	RA .2A		.000	.000
AVRB15	△	0A232	AEDC 16T TF431	LA .2A	RFN.1S		2.000	.000

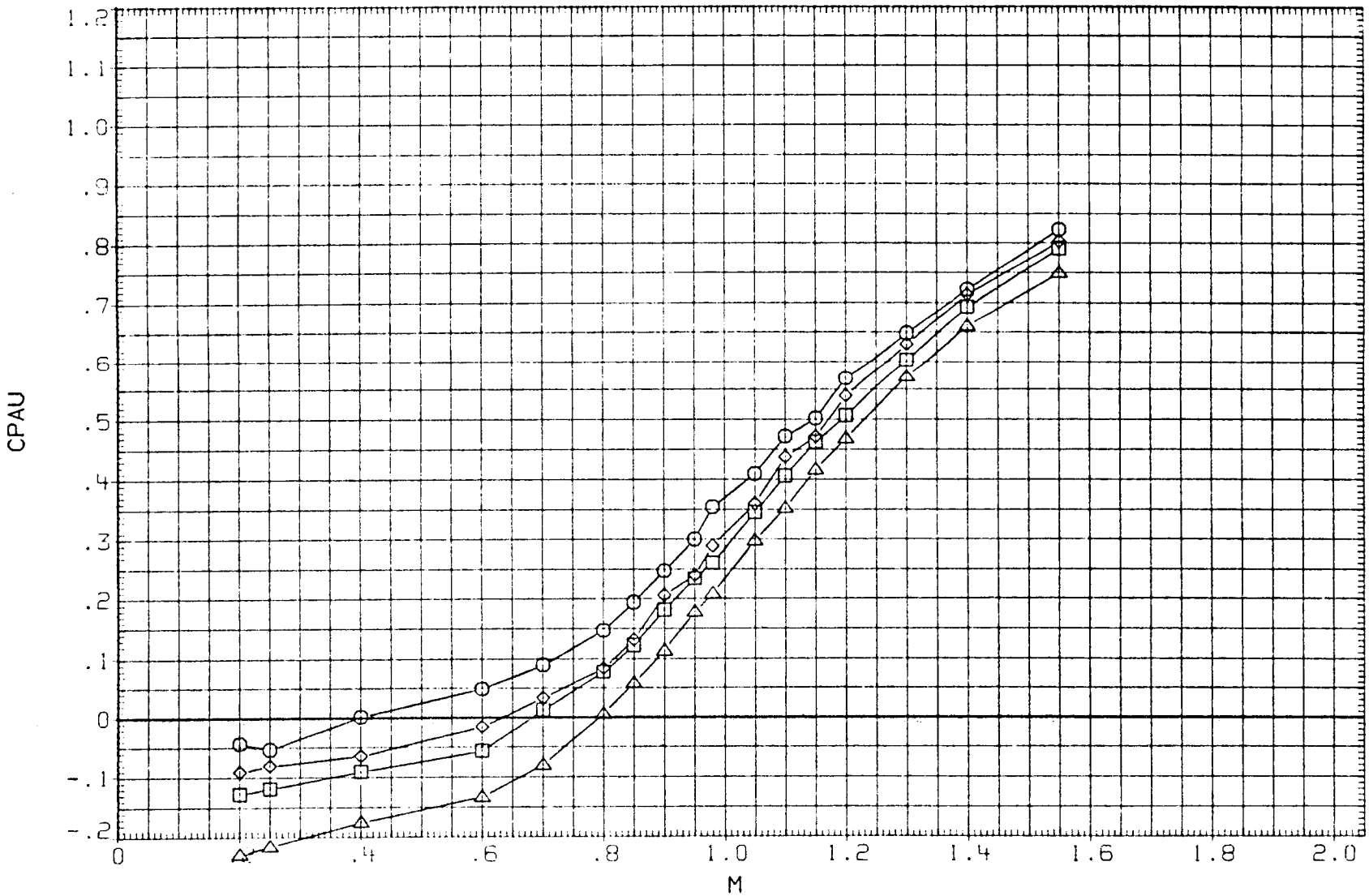


FIG. 48 0A232 SIDE PROBE CPAU VERSUS MACH NUMBER LEFT,RIGHT SIDES COMPARED
DATA INTERPOLATED WITH MACH,ALPHA,BETA

(E)ALPHA = 16.00 DATE 09 AUG 78 PAGE 285

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
AVRB12	○	OA232	AEDC 16T TF431	LA .2P/S	RA .2A		2.000	.000
AVRB14	□	OA232	AEDC 16T TF431	LA .2A	RFN.1S		.000	.000
AVRB11	◇	OA232	AEDC 16T TF431	LA .2P/S	RA .2A		.000	.000
AVRB15	△	OA232	AEDC 16T TF431	LA .2A	RFN.1S		2.000	.000

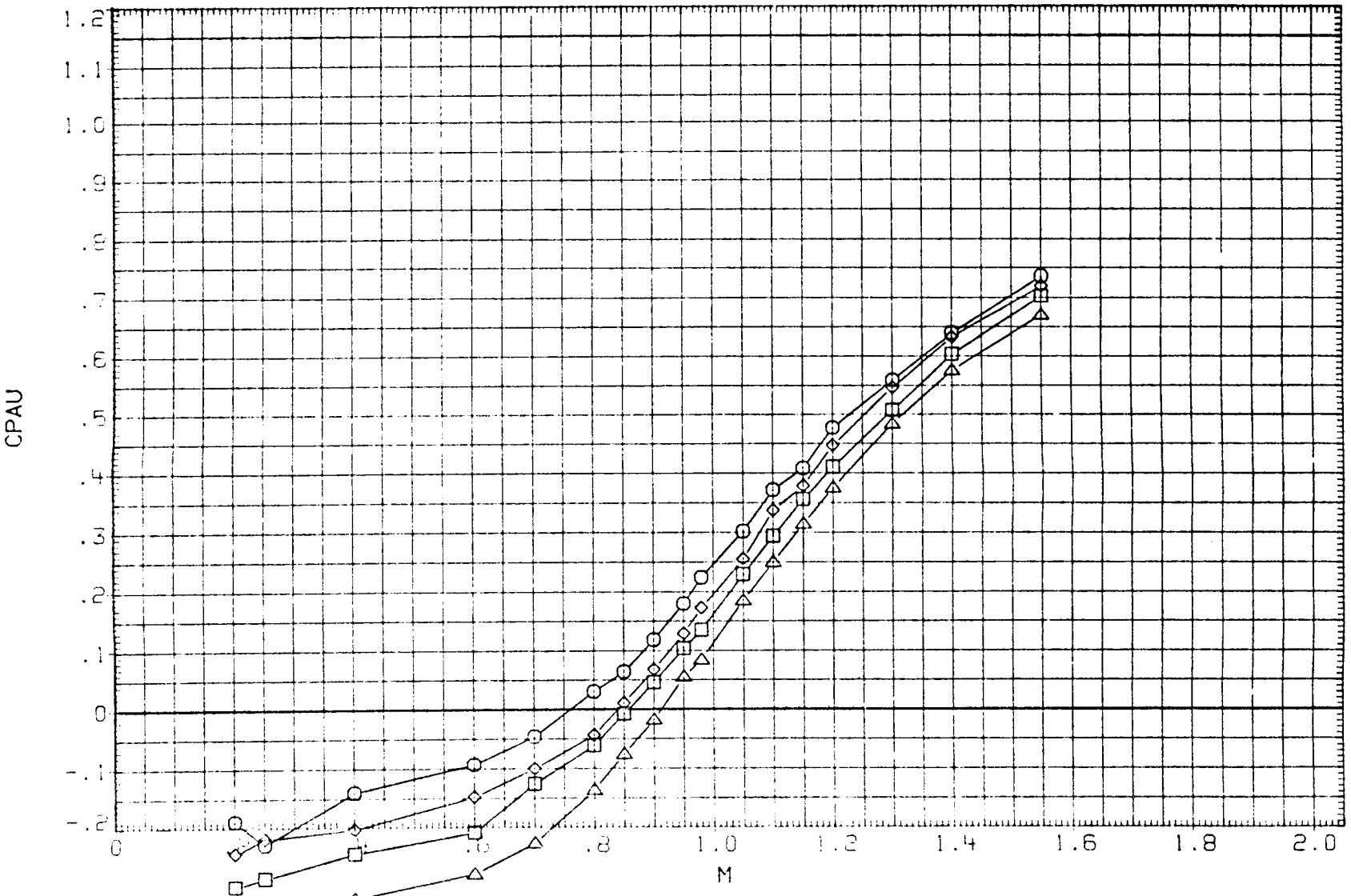


FIG. 48 OA232 SIDE PROBE CPAU VERSUS MACH NUMBER LEFT,RIGHT SIDES COMPARED
DATA INTERPOLATED WITH MACH,ALPHA,BETA

(F)ALPHA = 18.00 DATE 09 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
LVRU04	○	0A232 LFN . AND LA.2P/S SIDE PROBES COMBINED	.000	.000
LVRU06	□	0A232 LFN.1S AND LA.2P/S SIDE PROBES COMBINED	2.000	.000

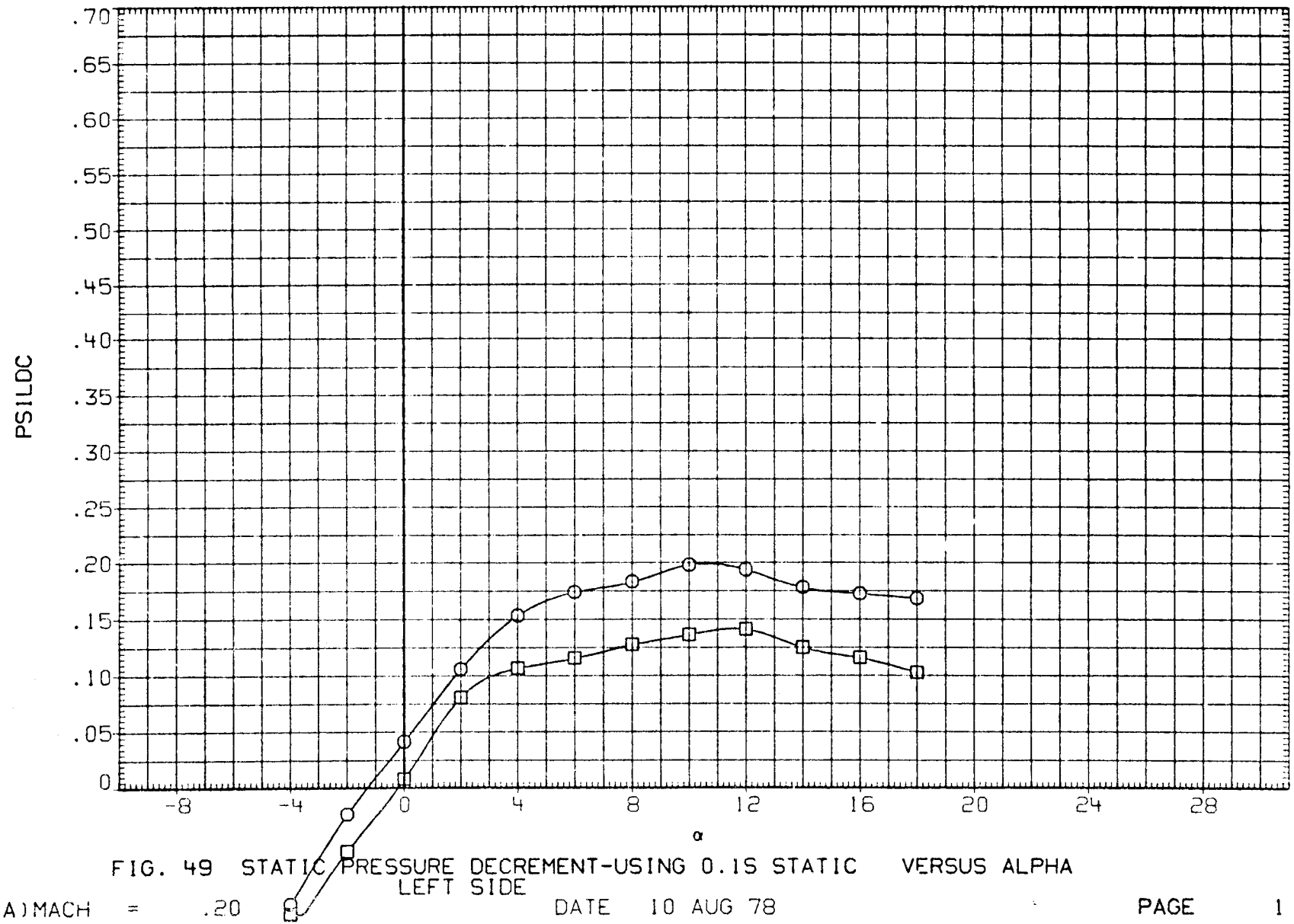


FIG. 49 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
LEFT SIDE

(A)MACH = .20 DATE 10 AUG 78 PAGE 1

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
LVRU04	○	0A232 LFN.1S AND LA.2P/S SIDE PROBES COMBINED	.000	.000
LVRU06	□	0A232 LFN.1S AND LA.2P/S SIDE PROBES COMBINED	2.000	.000

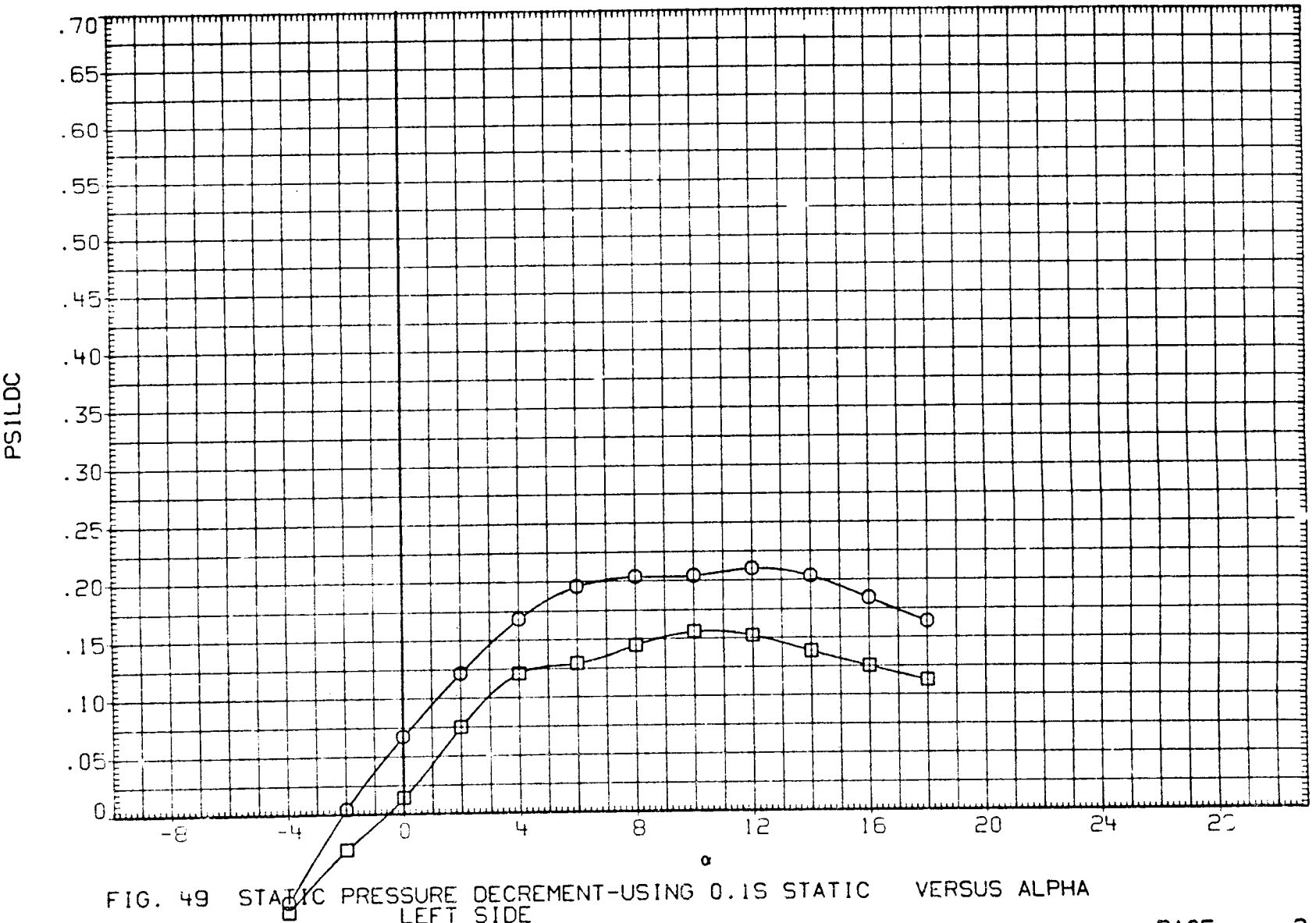


FIG. 49 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
LEFT SIDE

(B)MACH = .25 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
LVRU04	○	0A232 LFN.1S AND LA.2P/S SIDE PROBES COMBINED	.000	.000
LVRU06	□	0A232 LFN.1S AND LA.2P/S SIDE PROBES COMBINED	2.000	.000

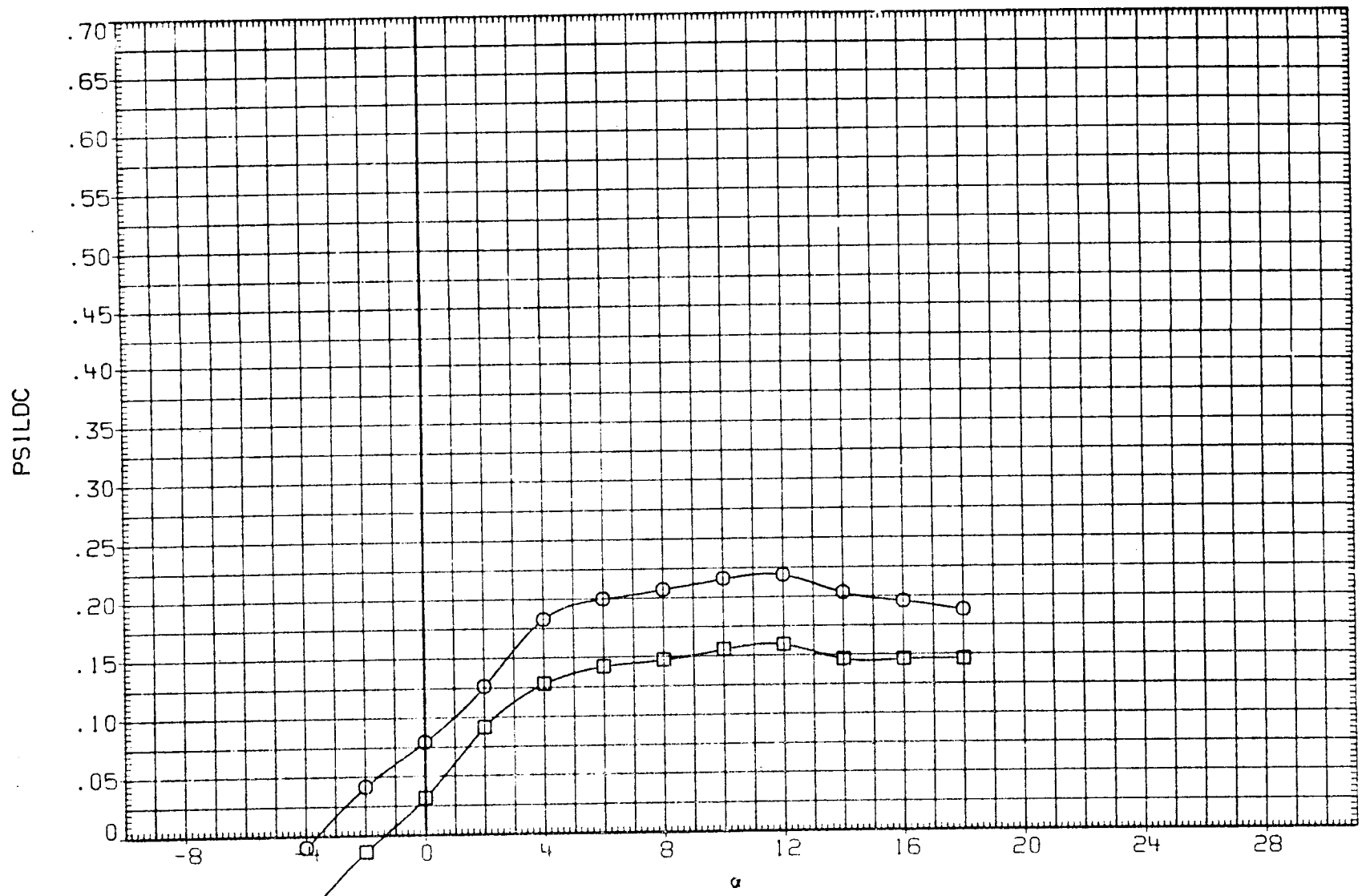


FIG. 49 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
LEFT SIDE

(C)MACH = .40 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
LVRU04	○	0A232 LFN.1S AND LA.2P/S SIDE PROBES COMBINED	.000	.000
LVRU06	□	0A232 LFN.1S AND LA.2P/S SIDE PROBES COMBINED	2.000	.000

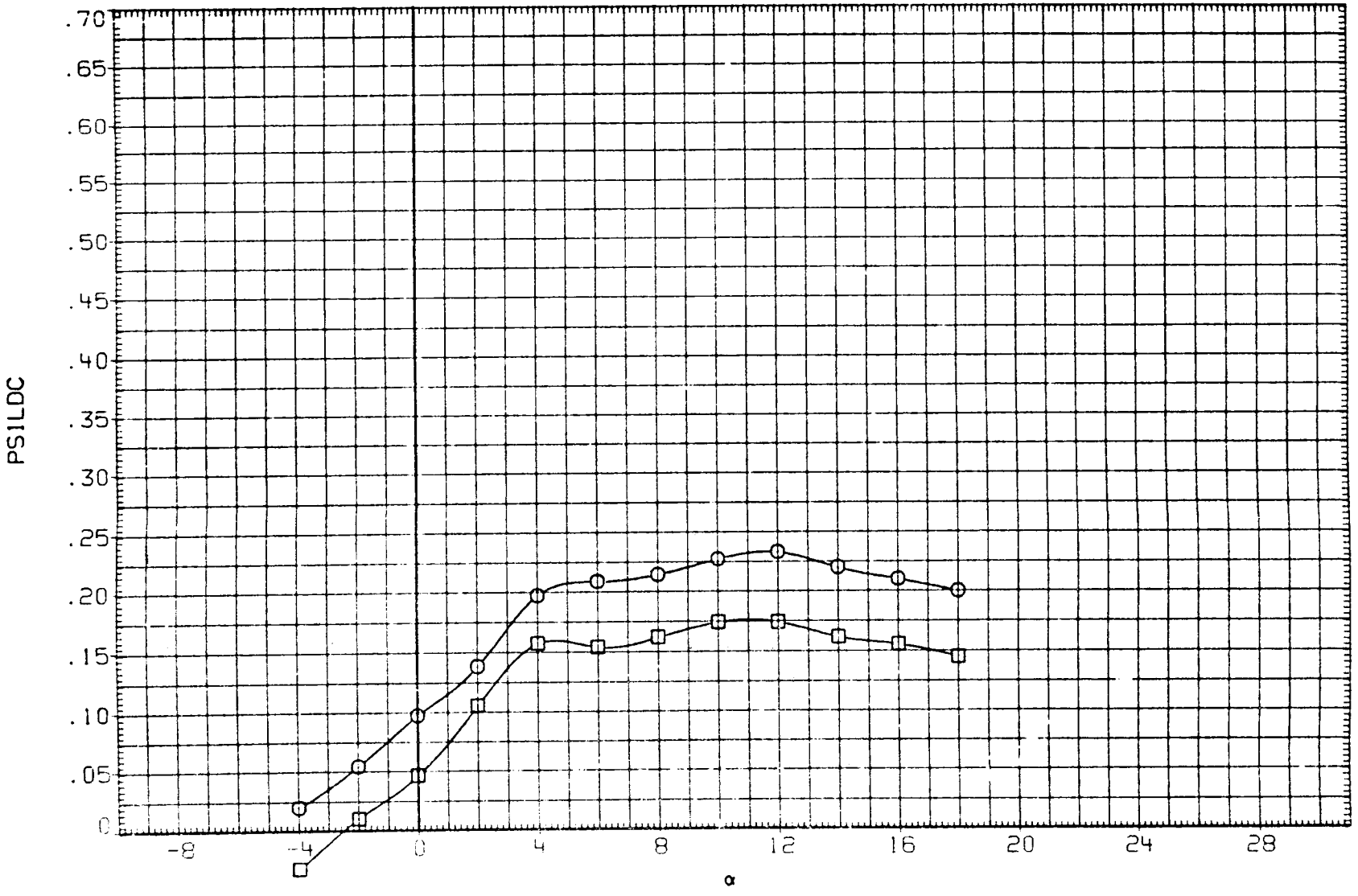


FIG. 49 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
LEFT SIDE

(D)MACH = .60 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
LVRU04	○	0A232 LFN.IS AND LA.2P/S SIDE PROBES COMBINED	.000	.000
LVRU06	□	0A232 LFN.IS AND LA.2P/S SIDE PROBES COMBINED	2.000	.000

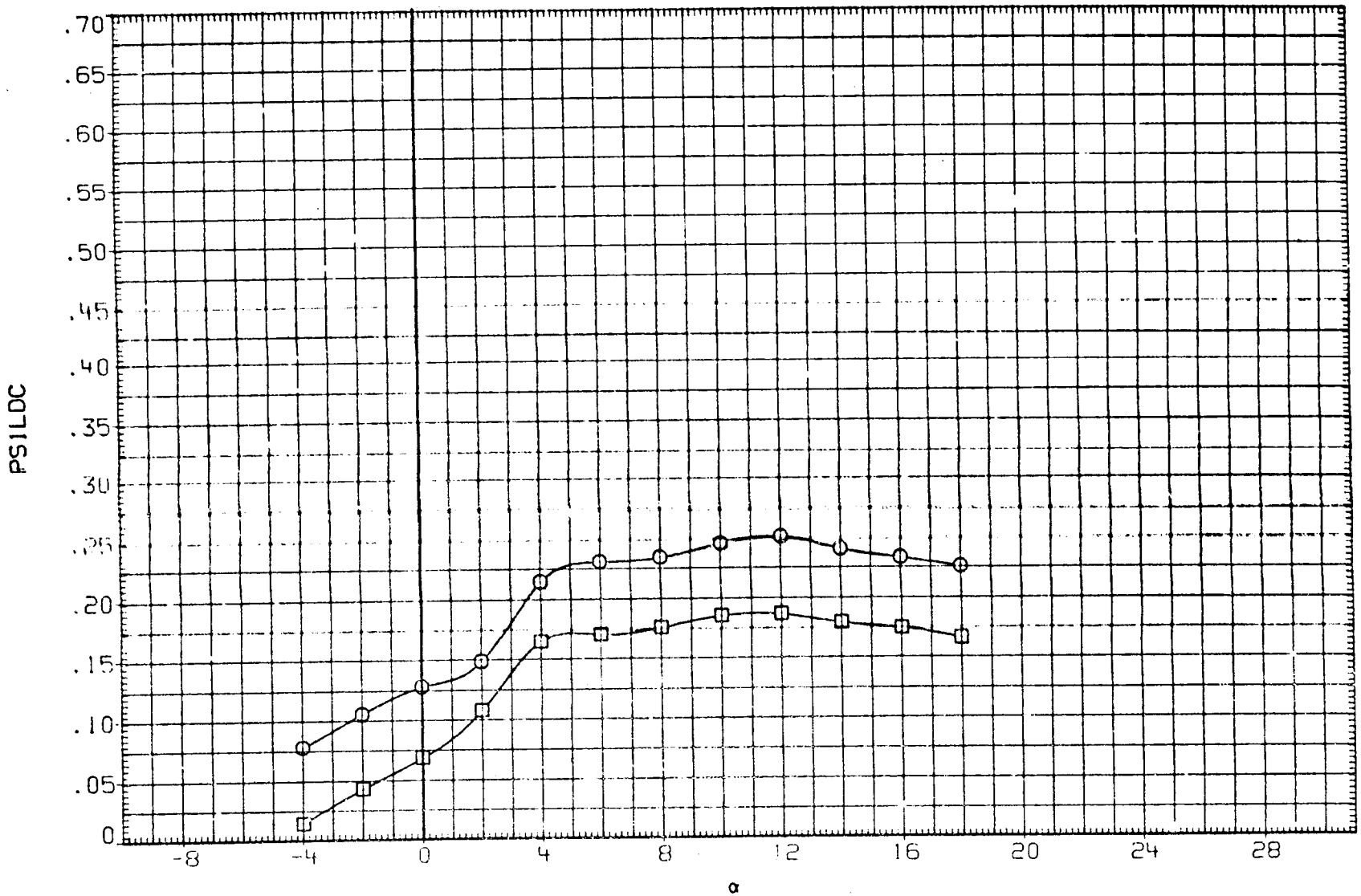


FIG. 49 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
LEFT SIDE

(E)MACH = .70 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
LVRU04	○	OA232 LFN.IS AND LA.2P/S SIDE PROBES COMBINED	.000	.000
LVRU06	□	OA232 LFN.IS AND LA.2P/S SIDE PROBES COMBINED	2.000	.000

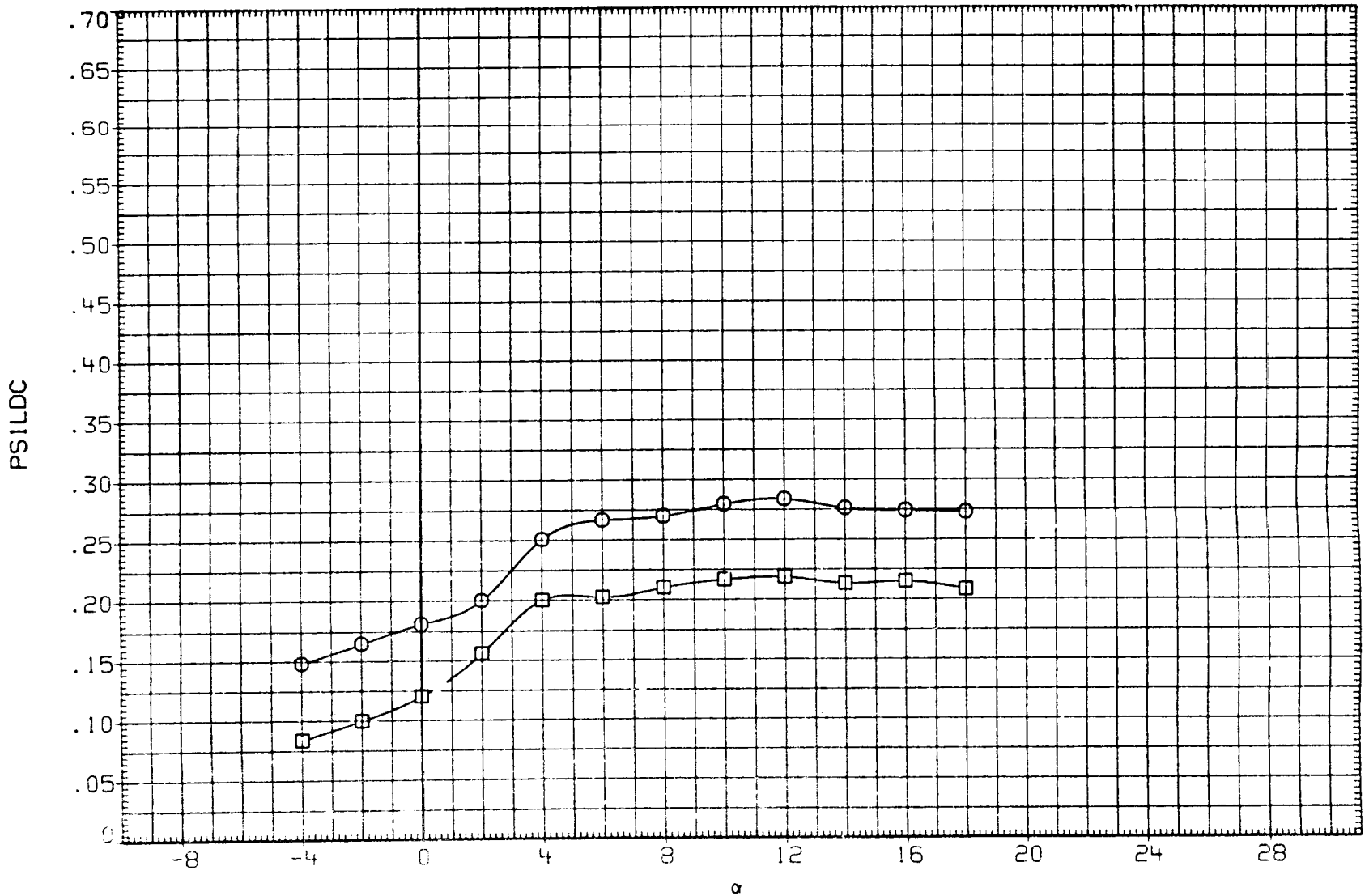


FIG. 49 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
LEFT SIDE

(F)MACH = .80 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
LVRU04	○	OA232 LFN.IS AND LA.2P/S SIDE PROBES COMBINED	.000	.000
LVRU06	□	OA232 LFN.IS AND LA.2P/S SIDE PROBES COMBINED	2.000	.000

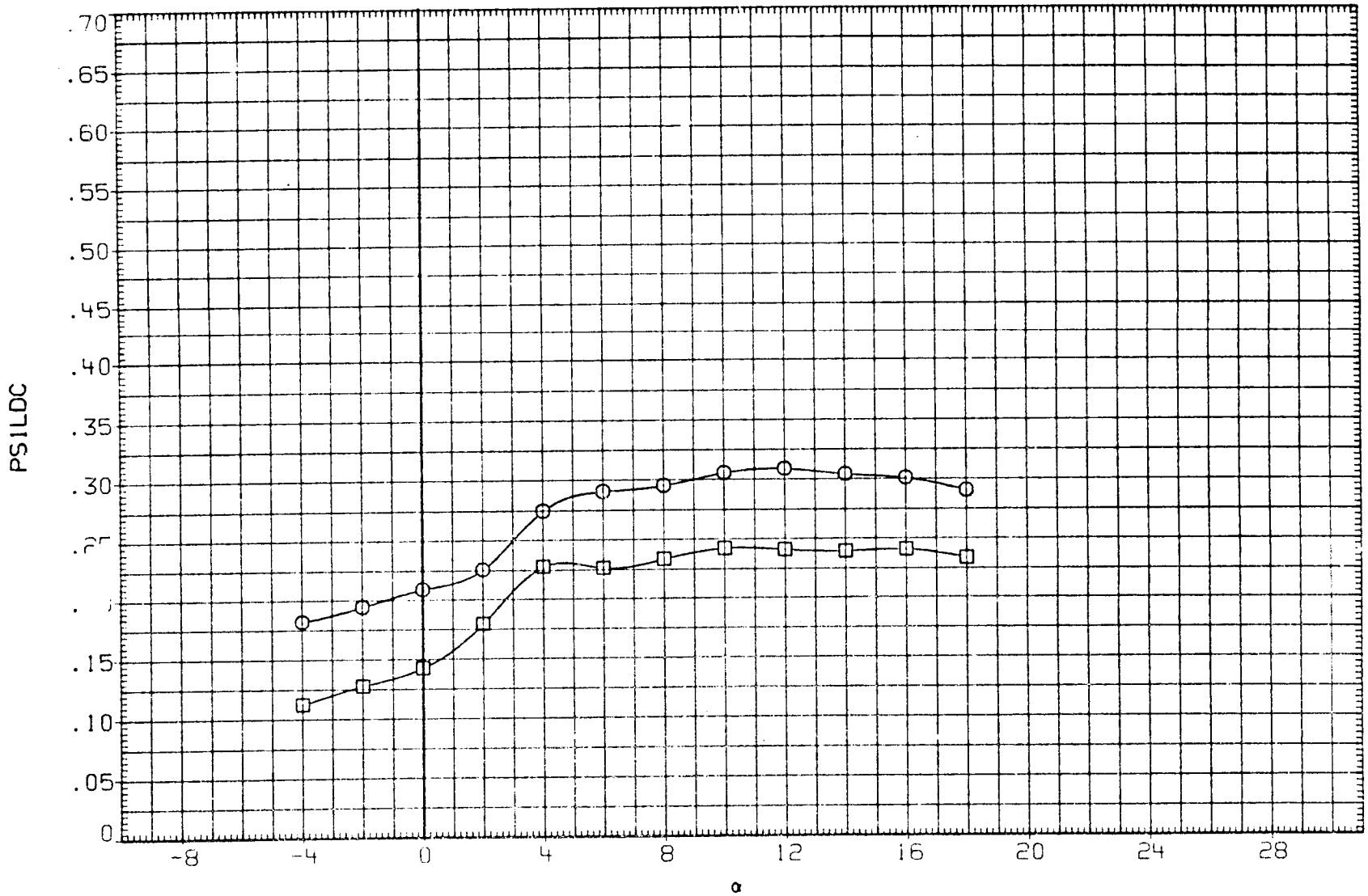


FIG. 49 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
LEFT SIDE

(G)MACH = .85 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
LVRU04	○	0A232 LFN.IS AND LA.2P/S SIDE PROBES COMBINED	.000	.000
LVRU06	□	0A232 LFN.IS AND LA.2P/S SIDE PROBES COMBINED	2.000	.000

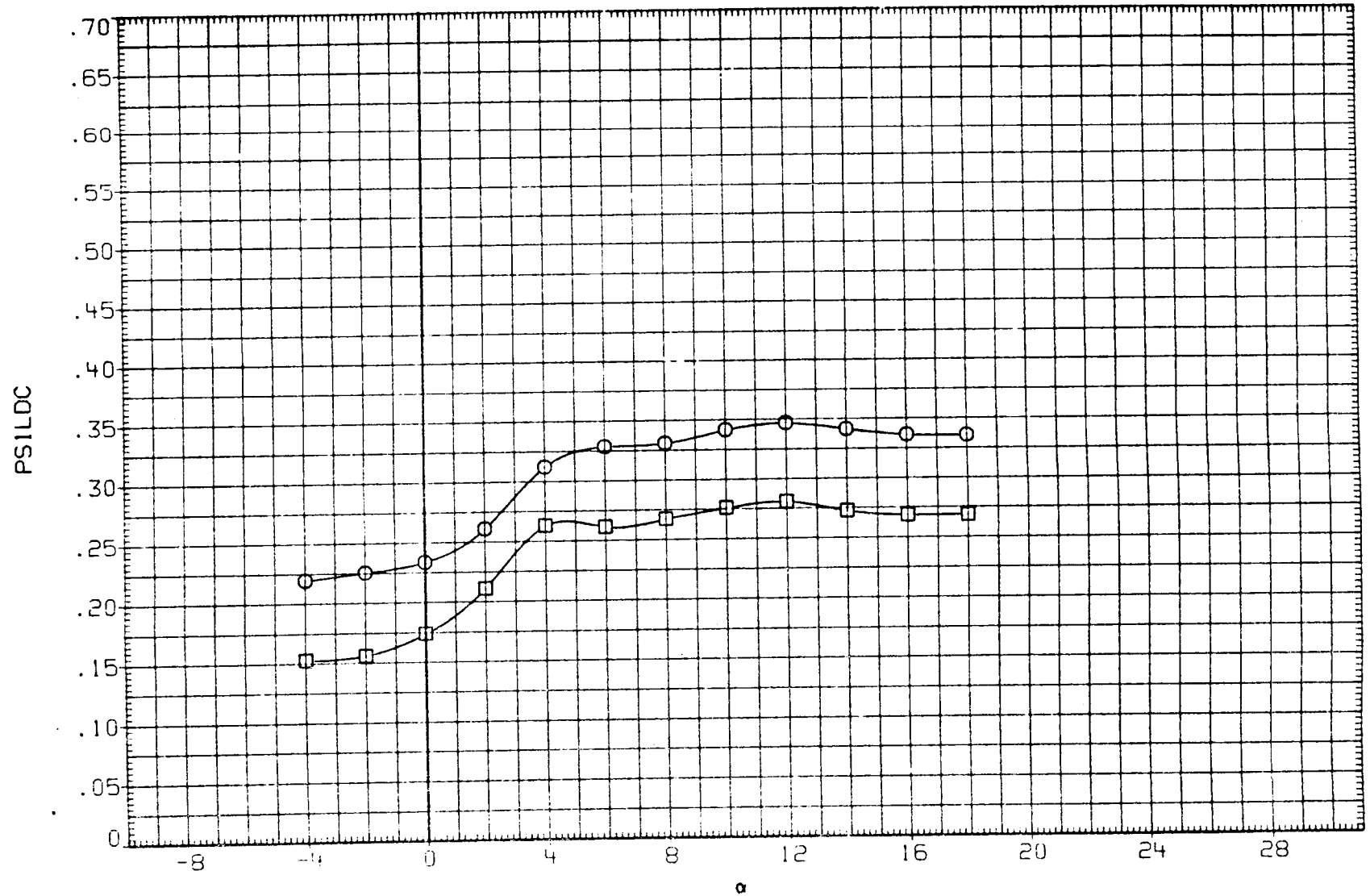


FIG. 49 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
LEFT SIDE

(H)MACH = .90 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
LVRU04	○	0A232 LFN 1S AND LA.2P/S SIDE PROBES COMBINED	.000	.000
LVRU06	□	0A232 LFN.1S AND LA.2P/S SIDE PROBES COMBINED	2.000	.000

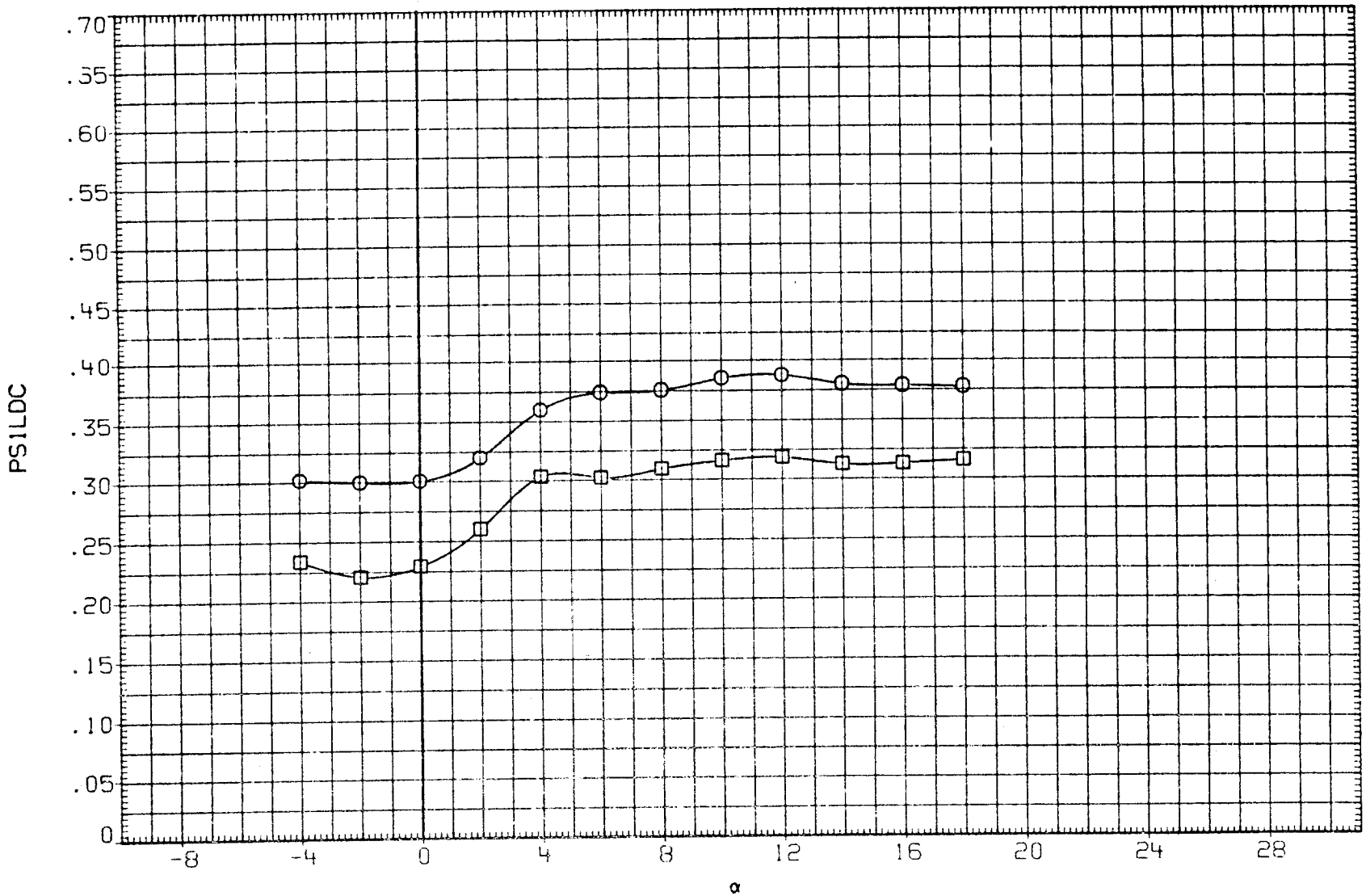


FIG. 49 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
LEFT SIDE

(I)MACH = .95 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
LVRU04	○	0A232 LFN.IS AND LA.2P/S SIDE PROBES COMBINED	.000	.000
LVRU06	□	0A232 LFN.IS AND LA.2P/S SIDE PROBES COMBINED	2.000	.000

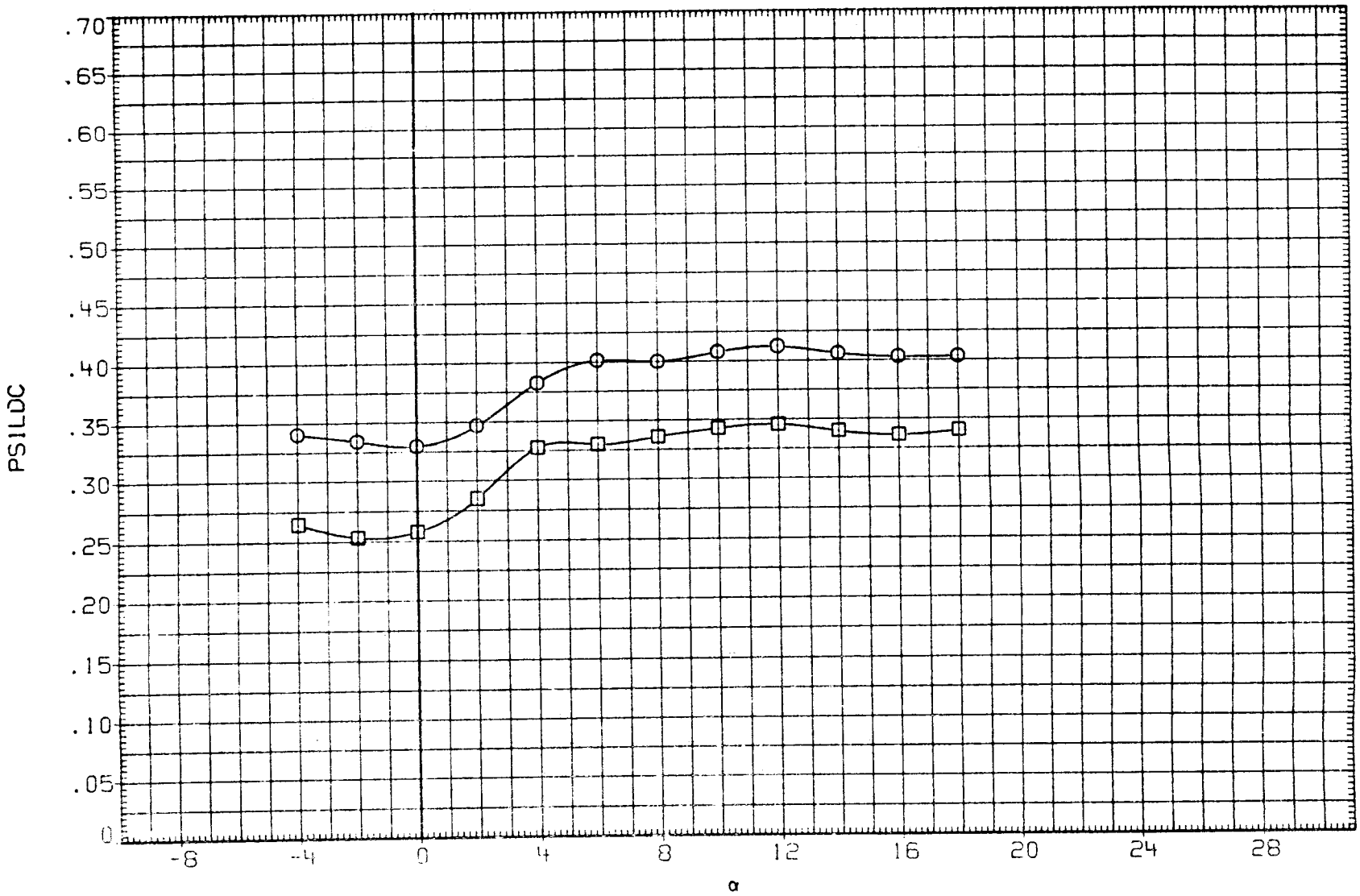


FIG. 49 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
LEFT SIDE

(J)MACH = .98 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
LVRU04	○	0A232 LFN.IS AND LA.2P/S SIDE PROBES COMBINED	.000	.000
LVRU05	□	0A232 LFN.IS AND LA.2P/S SIDE PROBES COMBINED	2.000	.000

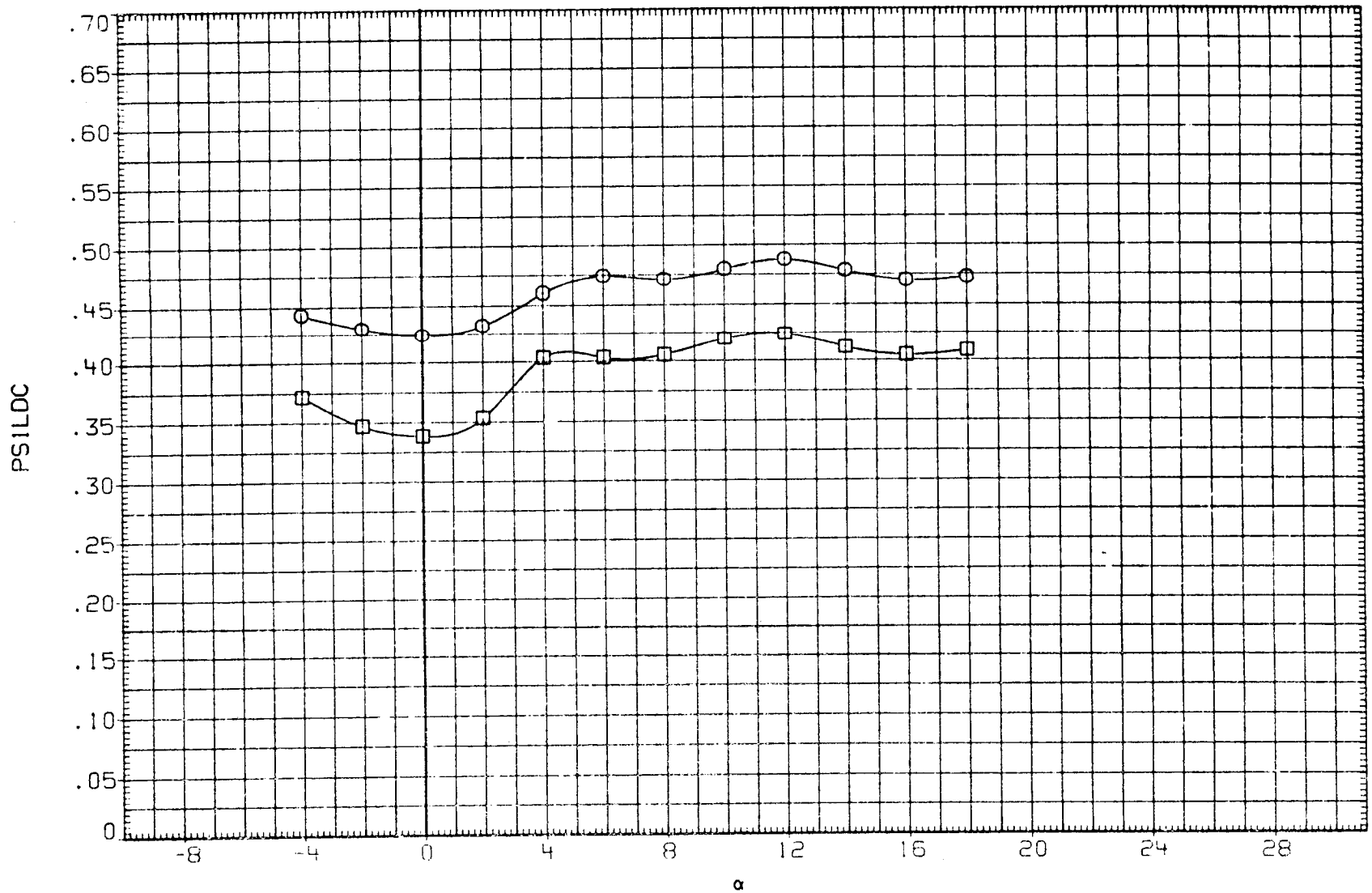


FIG. 49 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
LEFT SIDE

(K)MACH = 1.05 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
LVRU04	○	0A232 LFN.1S AND LA.2P/S SIDE PROBES COMBINED	.000	.000
LVRU06	□	0A232 LFN.1S AND LA.2P/S SIDE PROBES COMBINED	2.000	.000

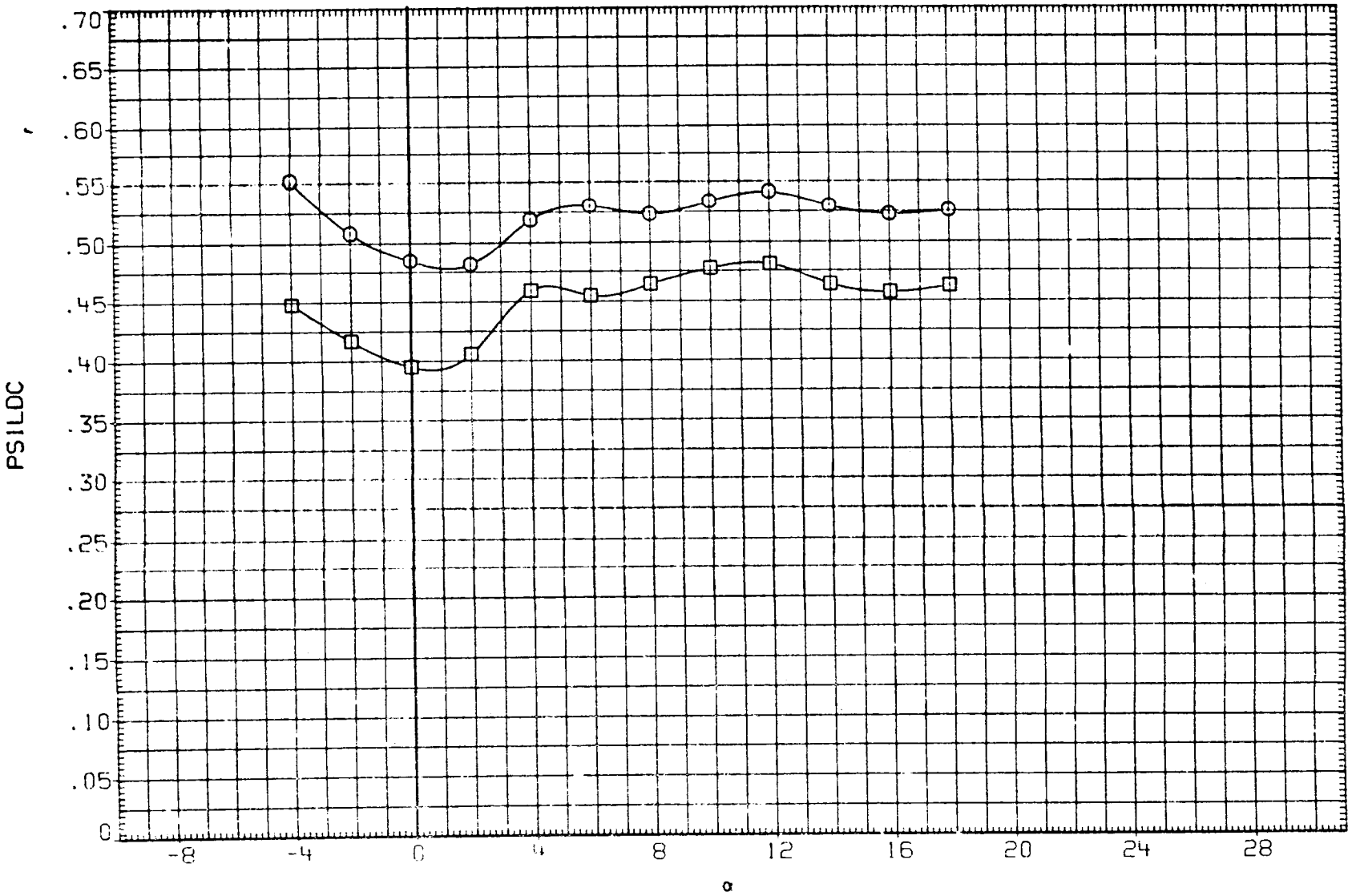


FIG. 49 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
LEFT SIDE

(L)MACH = 1.10 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
LVRU04	○	0A232 LFN.1S AND LA.2P/S SIDE PROBES COMBINED	.000	.000
LVRU06	□	0A232 LFN.1S AND LA.2P/S SIDE PROBES COMBINED	2.000	.000

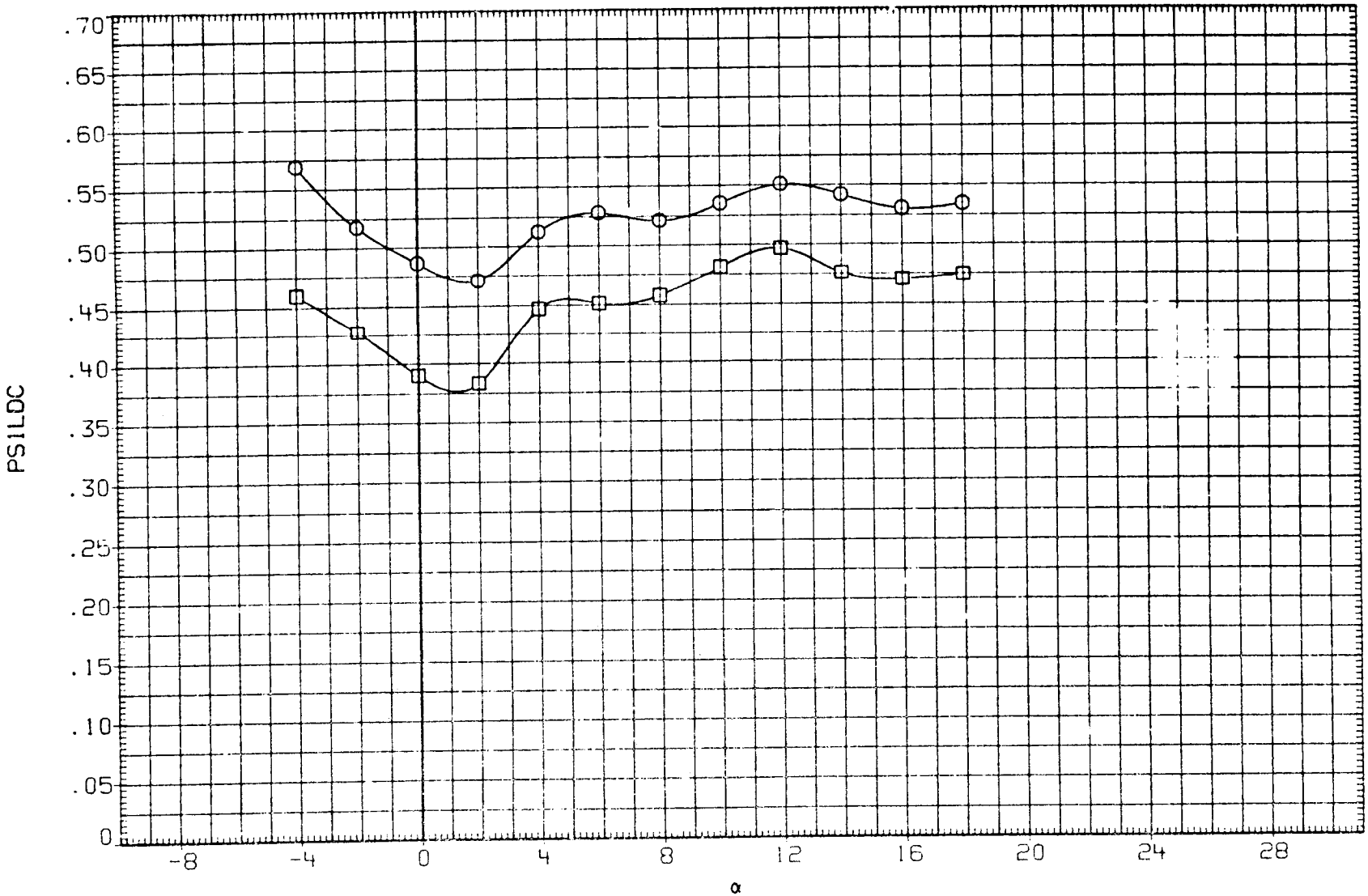


FIG. 49 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
LEFT SIDE

(M)MACH = 1.15 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
LVRU04	○	0A232 LFN.1S AND LA.2P/S SIDE PROBES COMBINED	.000	.000
LVRU06	□	0A232 LFN.1S AND LA.2P/S SIDE PROBES COMBINED	2.000	.000

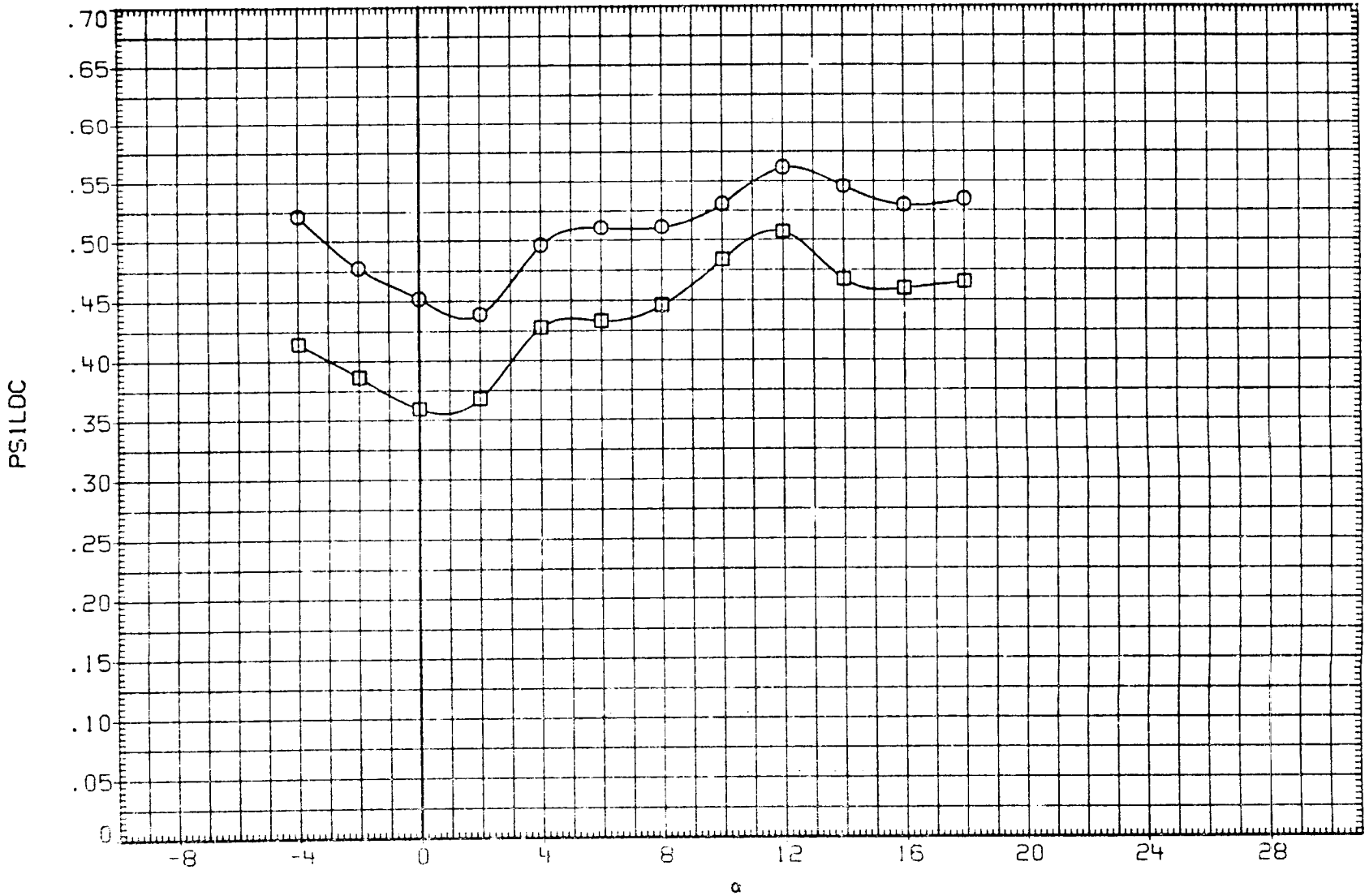


FIG. 49 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
LEFT SIDE

(N)MACH = 1.20 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
LVRU04	○	0A232 LFN.1S AND LA.2P/S SIDE PROBES COMBINED	.000	.000
LVRU06	□	0A232 LFN.1S AND LA.2P/S SIDE PROBES COMBINED	2.000	.000

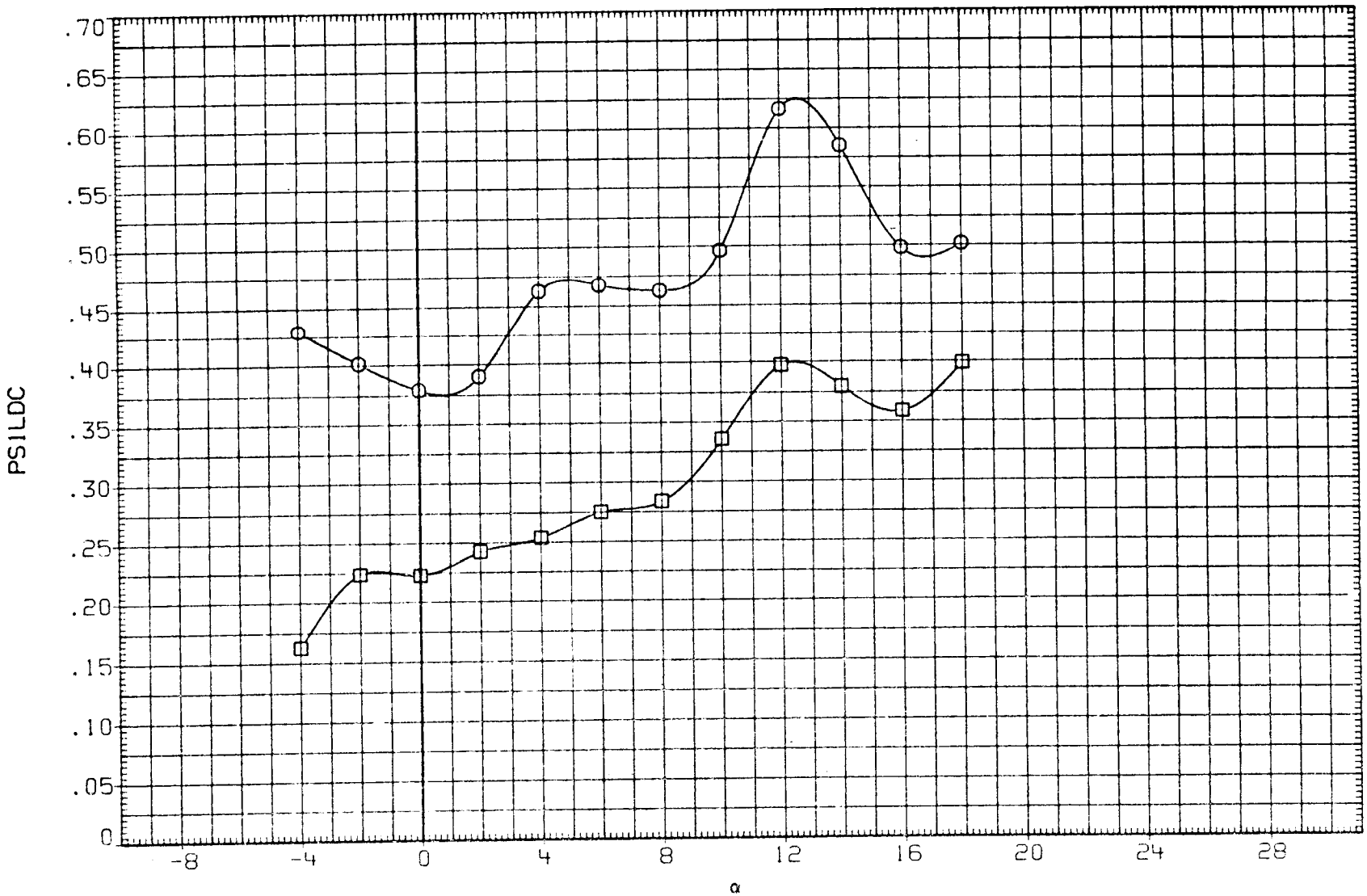


FIG. 49 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
LEFT SIDE

(O)MACH = 1.30 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
LVRU04	○	0A232 LFN.1S AND LA.2P/S SIDE PROBES COMBINED	.000	.000
LVRU06	□	0A232 LFN.1S AND LA.2P/S SIDE PROBES COMBINED	2.000	.000

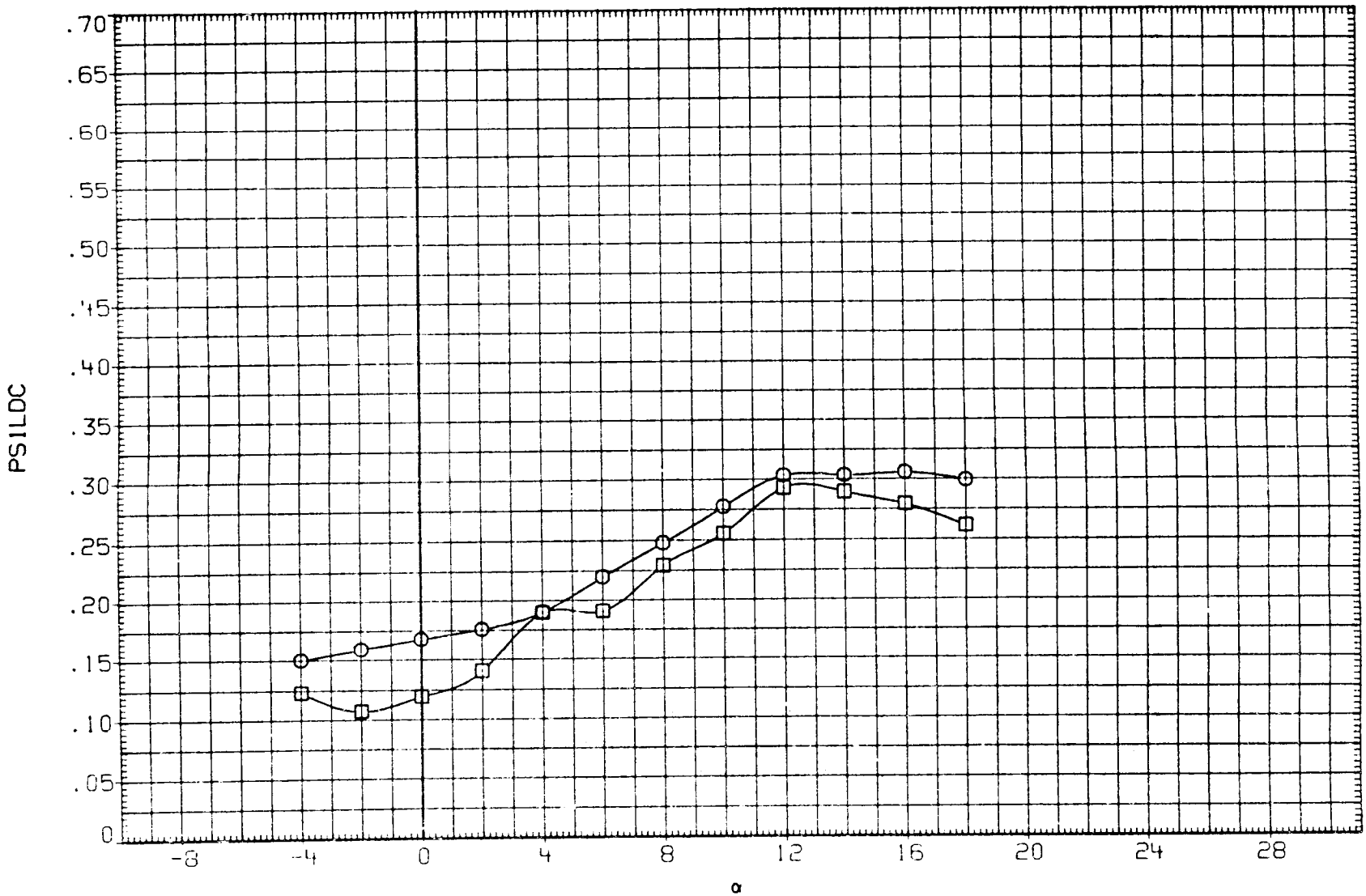


FIG. 49 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
LEFT SIDE

(P)MACH = 1.40 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
LVRU04	○	0A232 LFN.1S AND LA.2P/S SIDE PROBES COMBINED	.000	.000
LVRU06	□	0A232 LFN.1S AND LA.2P/S SIDE PROBES COMBINED	2.000	.000

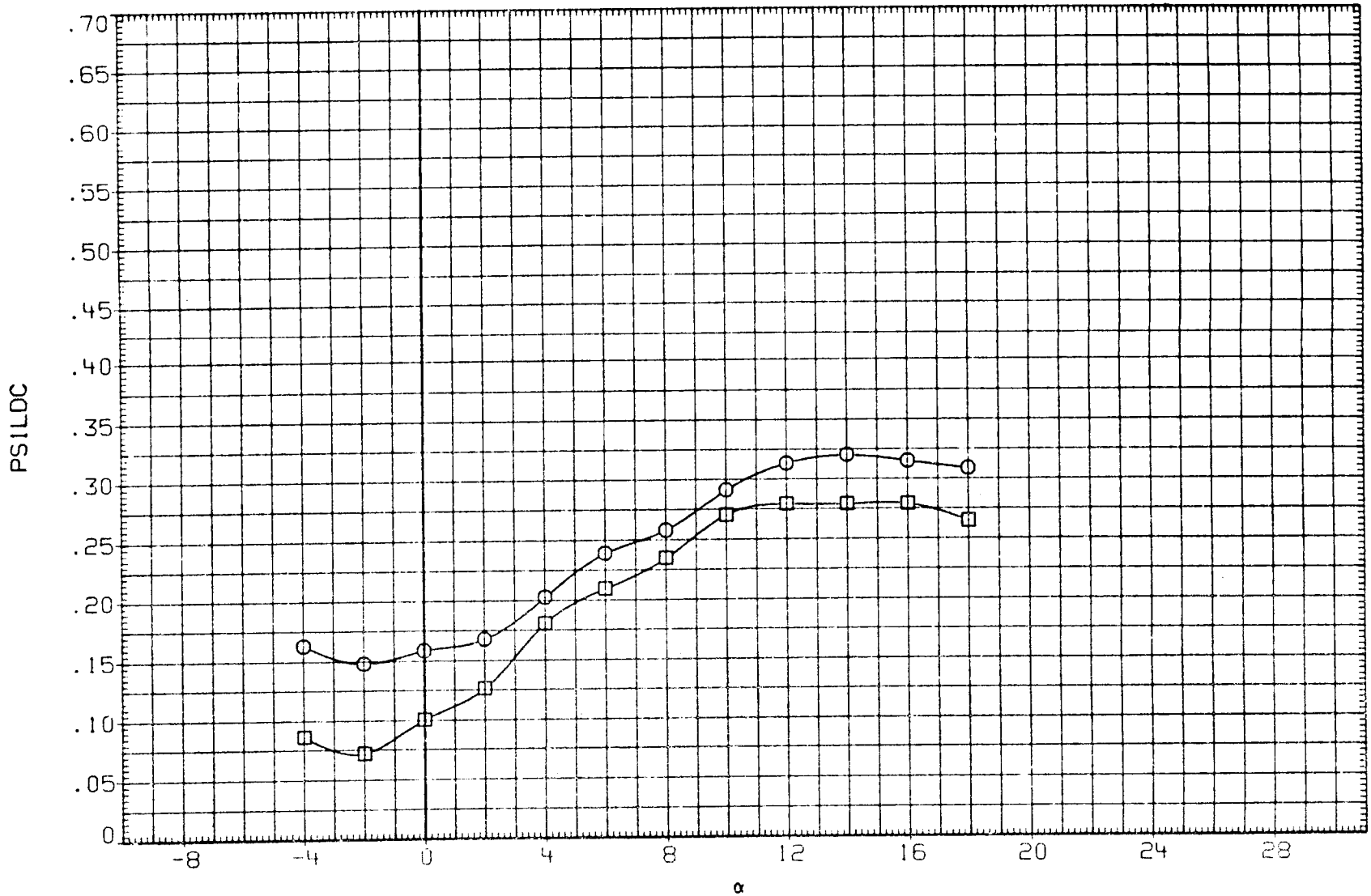


FIG. 49 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
LEFT SIDE

(Q)MACH = 1.55 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
RVRU14	○	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	.000	.000
RVRU15	□	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	2.000	.000

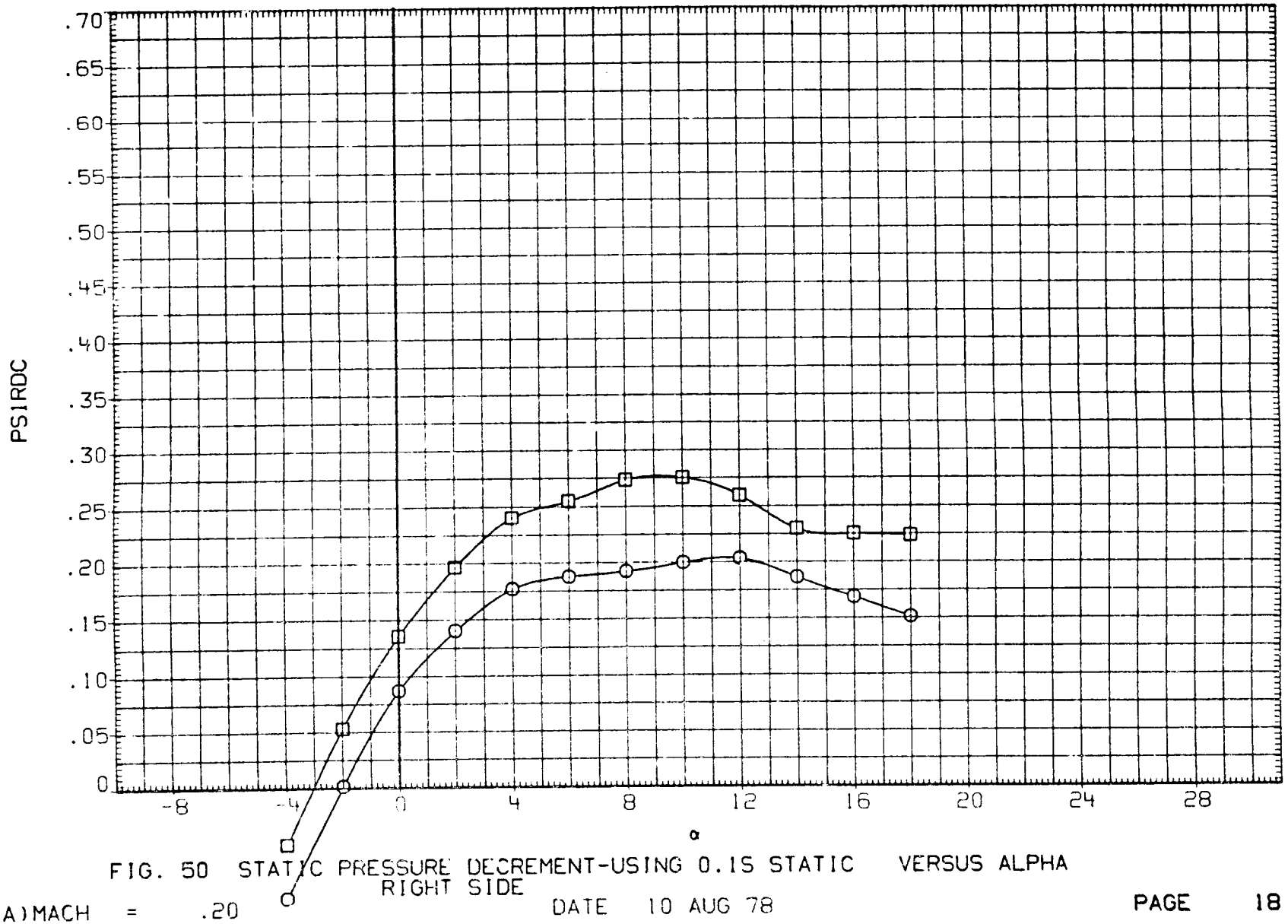


FIG. 50 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
RIGHT SIDE

(A)MACH = .20 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
RVRU14	○	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	.000	.000
RVRU15	□	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	2.000	.000

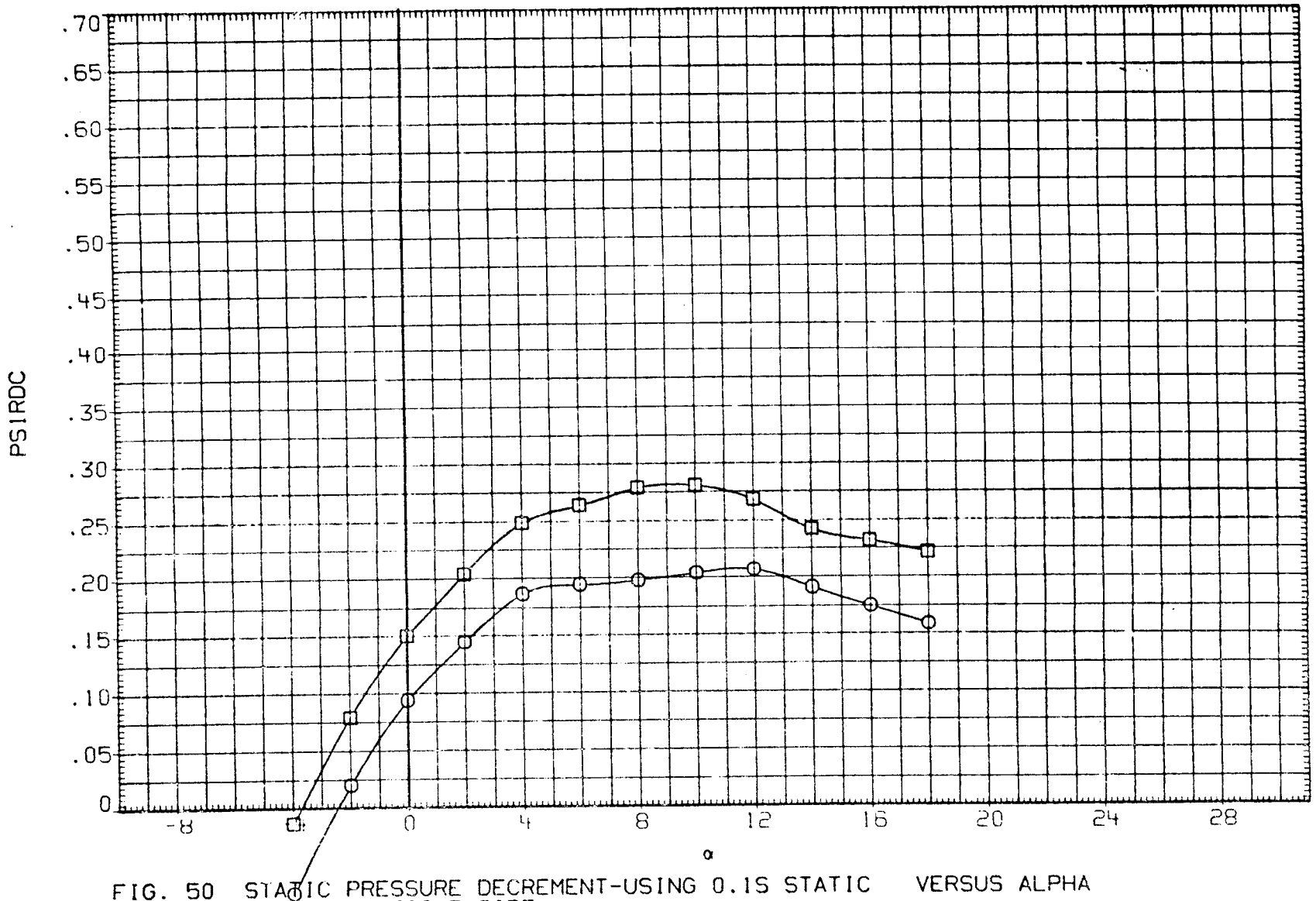


FIG. 50 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
RIGHT SIDE

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
RVRU14	○	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	.000	.000
RVRU15	□	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	2.000	.000

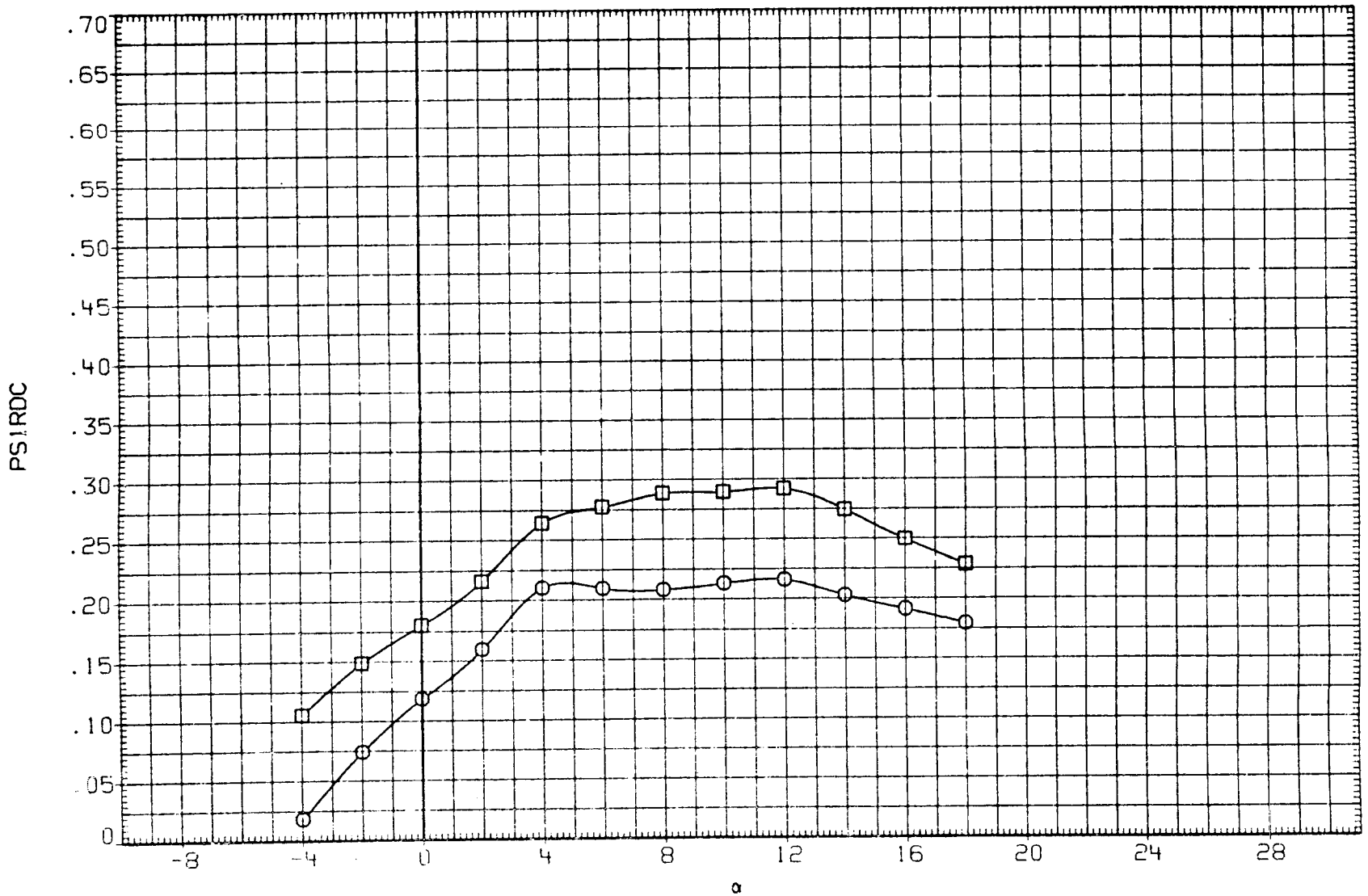


FIG. 50 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
RIGHT SIDE

(C)MACH = .40 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
RVRU14	○	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	.000	.000
RVRU15	□	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	2.000	.000

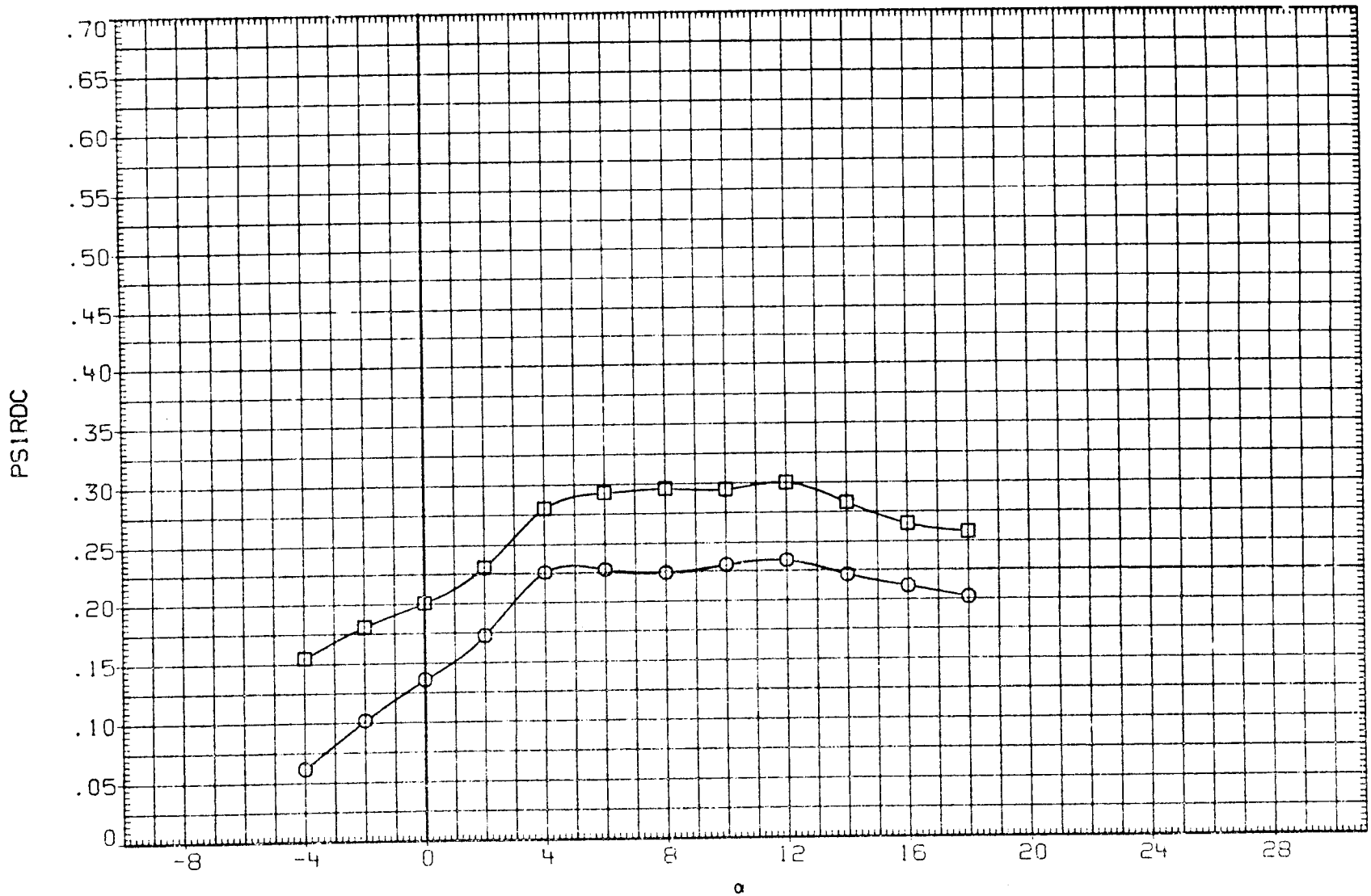


FIG. 50 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
RIGHT SIDE

(D)MACH = .60 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
RVRU14	○	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	.000	.000
RVRU15	□	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	2.000	.000

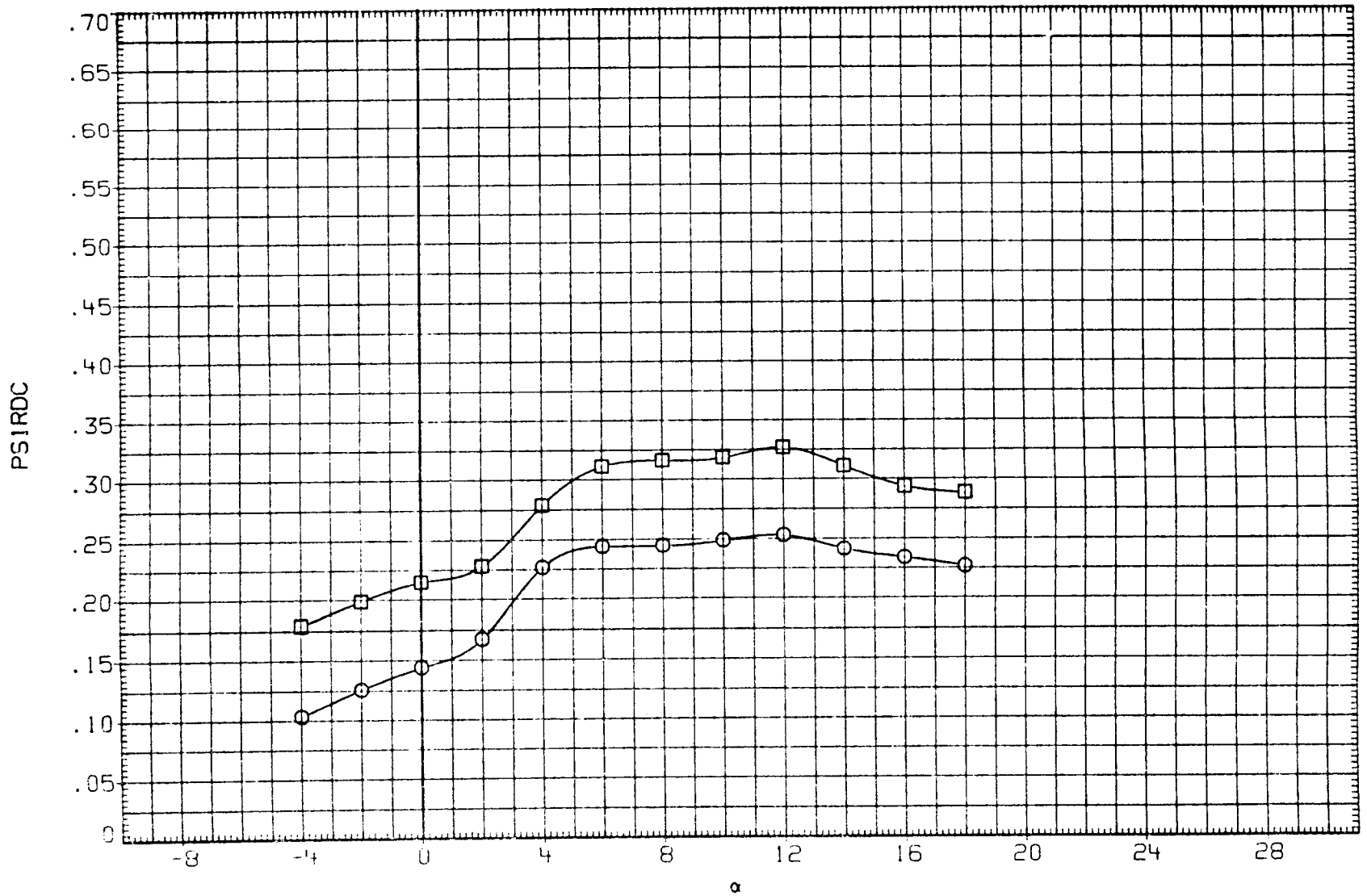


FIG. 50 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
RIGHT SIDE

(E)MACH = .70 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
RVRU14	○	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	.000	.000
RVRU15	□	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	2.000	.000

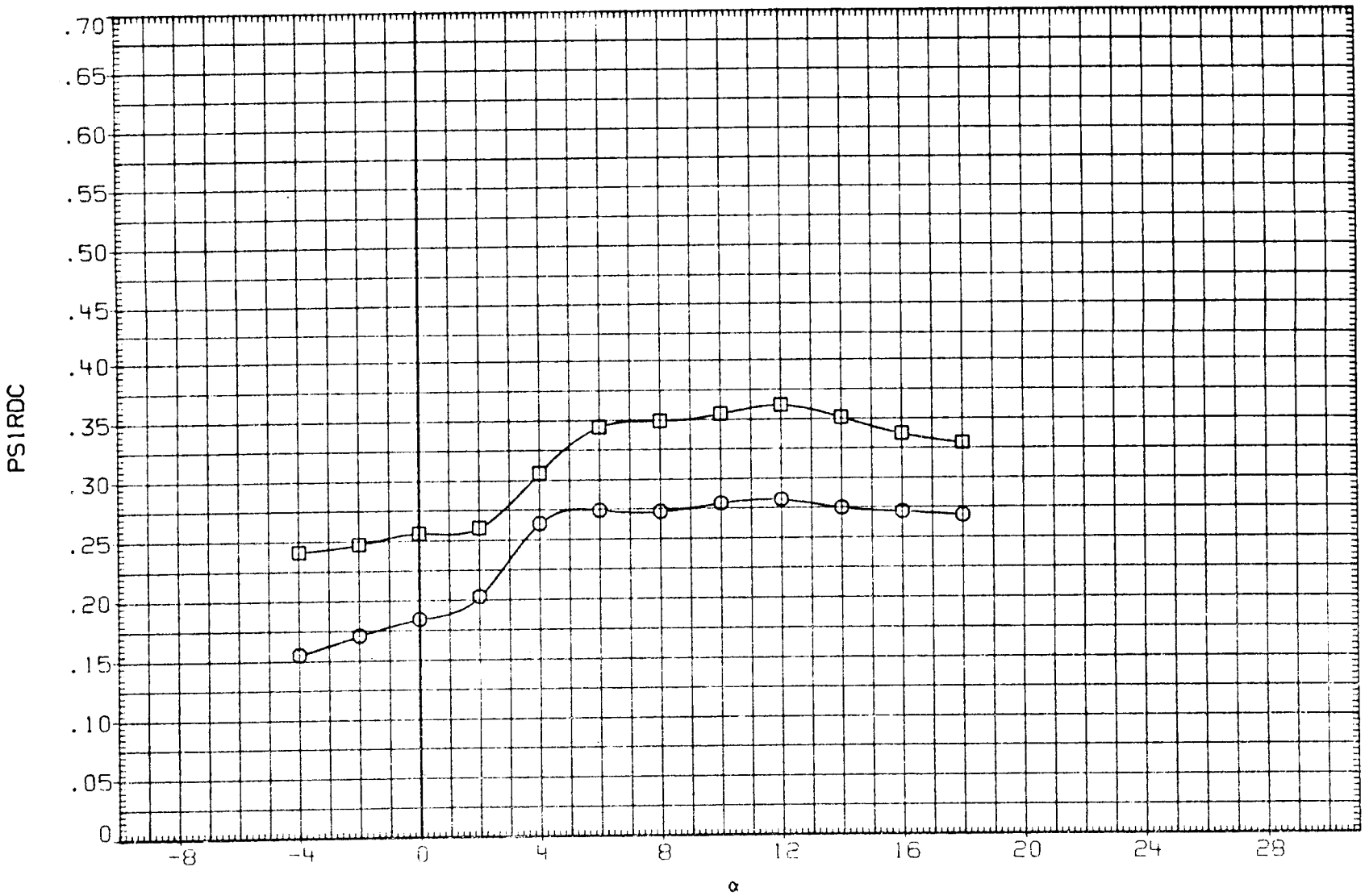


FIG. 50 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
RIGHT SIDE

(F)MACH = 80 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
RVRU14	○	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	.000	.000
RVRU15	□	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	2.000	.000

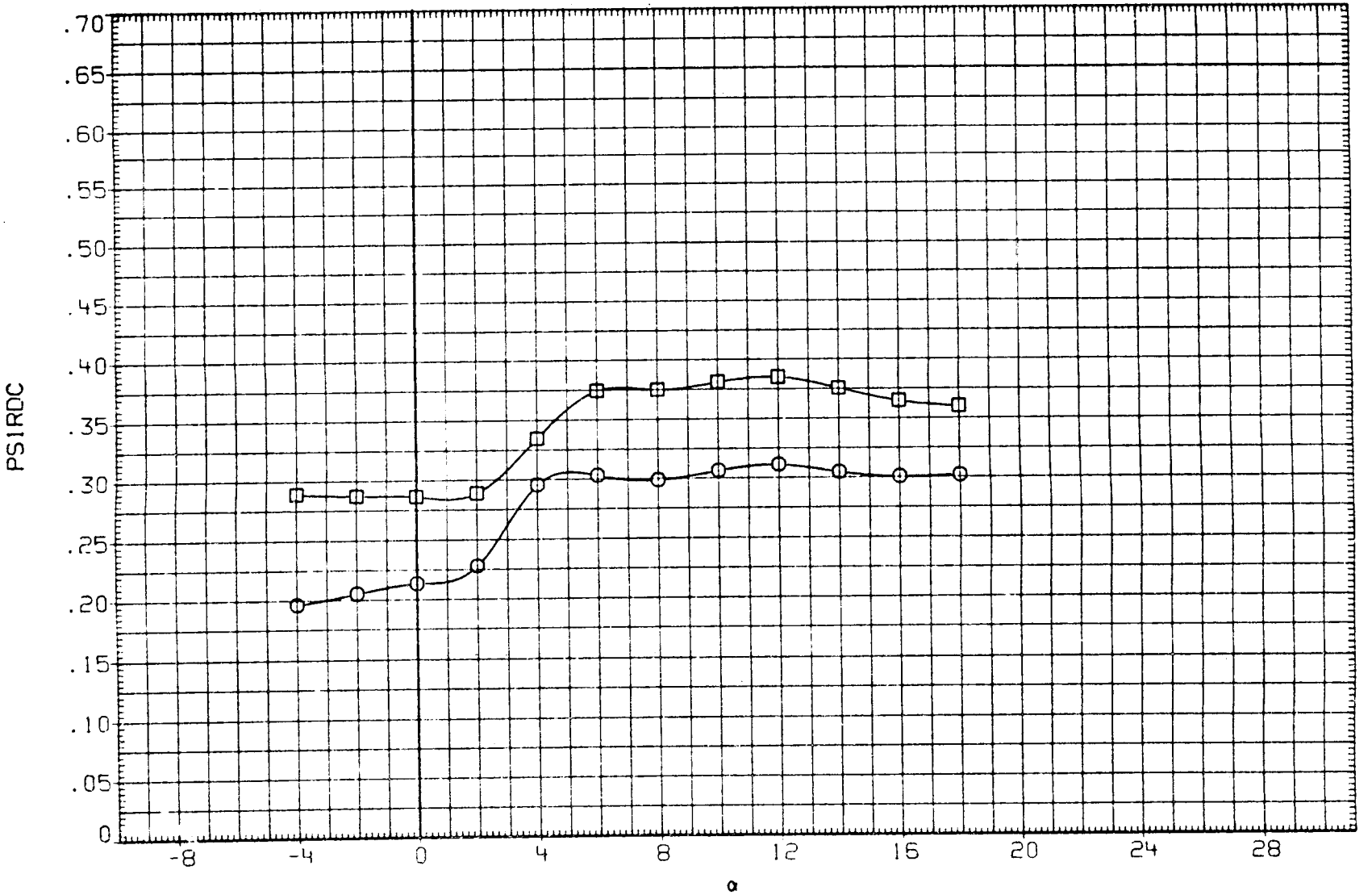


FIG. 50 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
RIGHT SIDE

(G)MACH = .85 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
RVRU14	○	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	.000	.000
RVRU15	□	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	2.000	.000

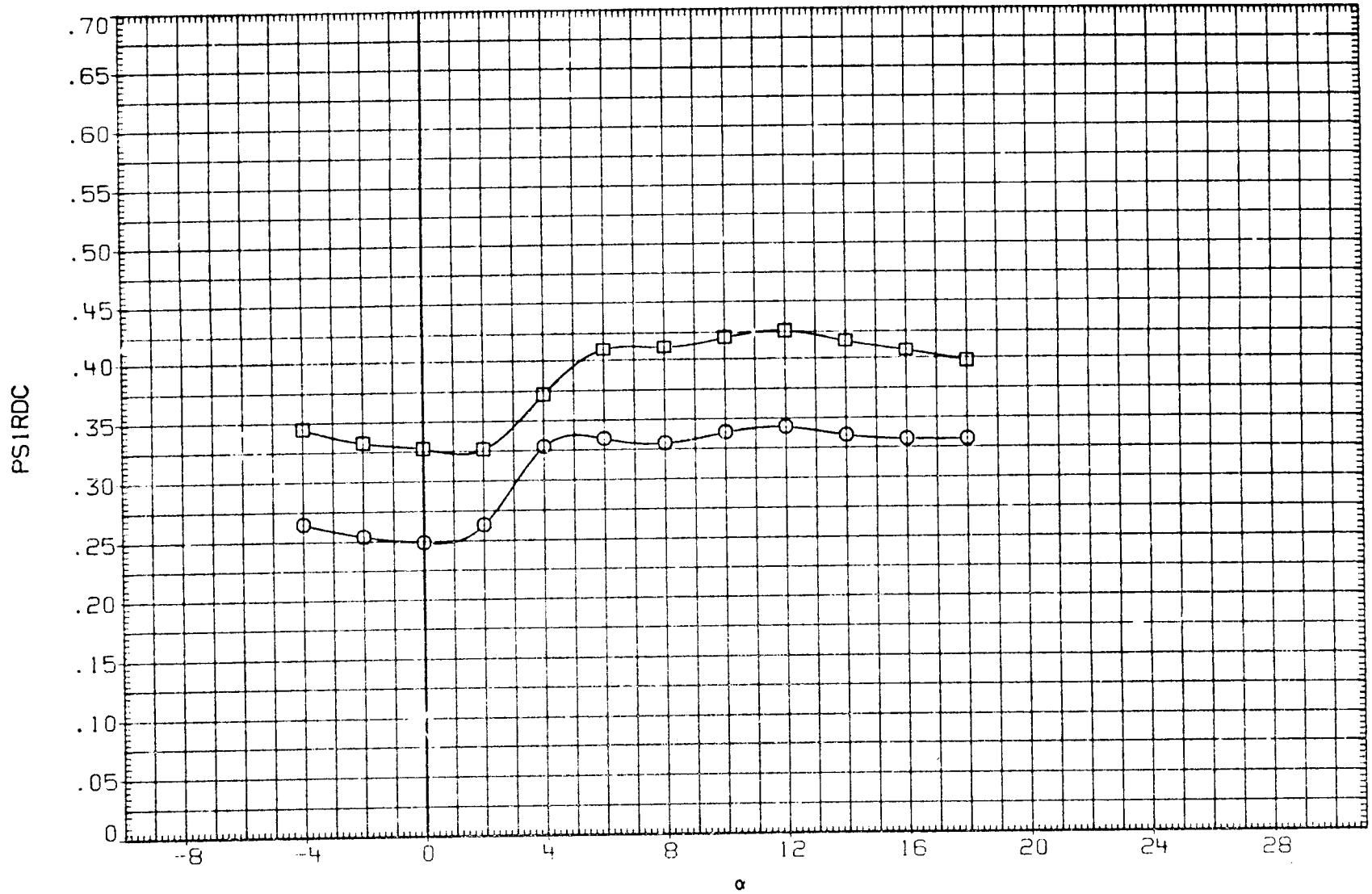


FIG. 50 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
RIGHT SIDE

(H)MACH = .90 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
RVRU14	○	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	.000	.000
RVRU15	□	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	2.000	.000

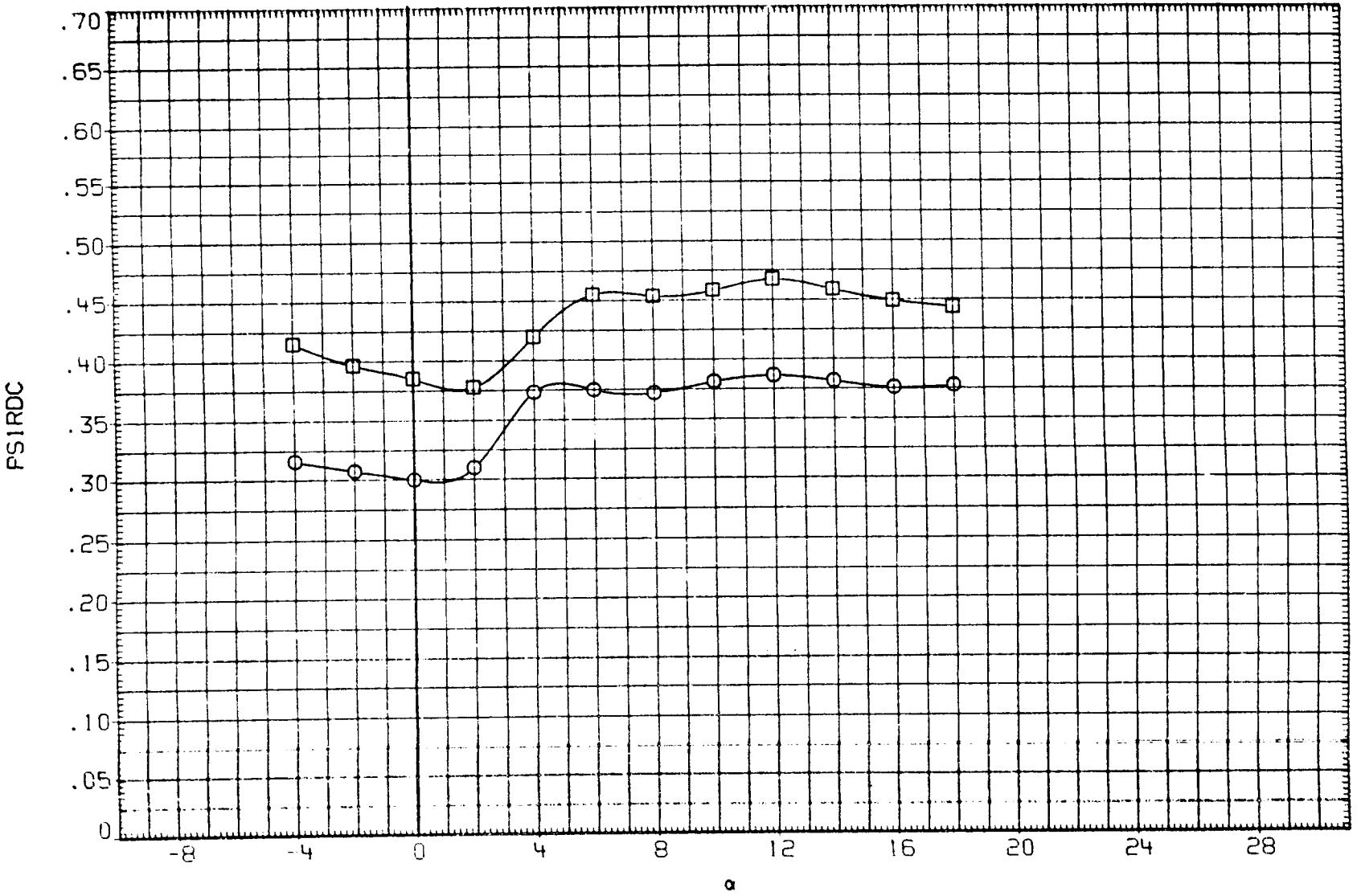


FIG. 50 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
RIGHT SIDE

(I)MACH = .95 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
RVRU14	○	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	.000	.000
RVRU15	□	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	2.000	.000

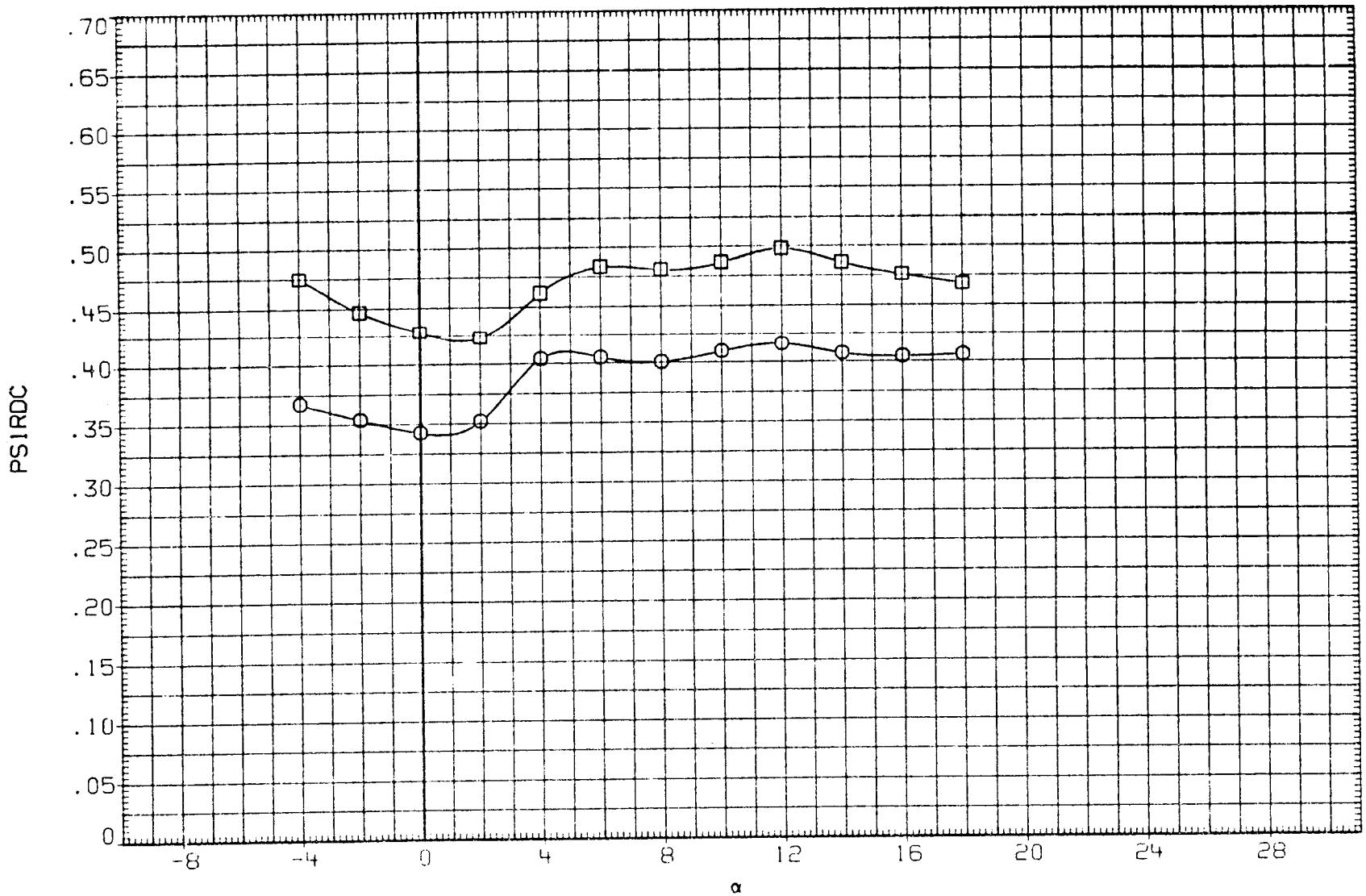


FIG. 50 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
RIGHT SIDE

(J)MACH = .98 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
RVRU14	○	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	.000	.000
RVRU15	□	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	2.000	.000

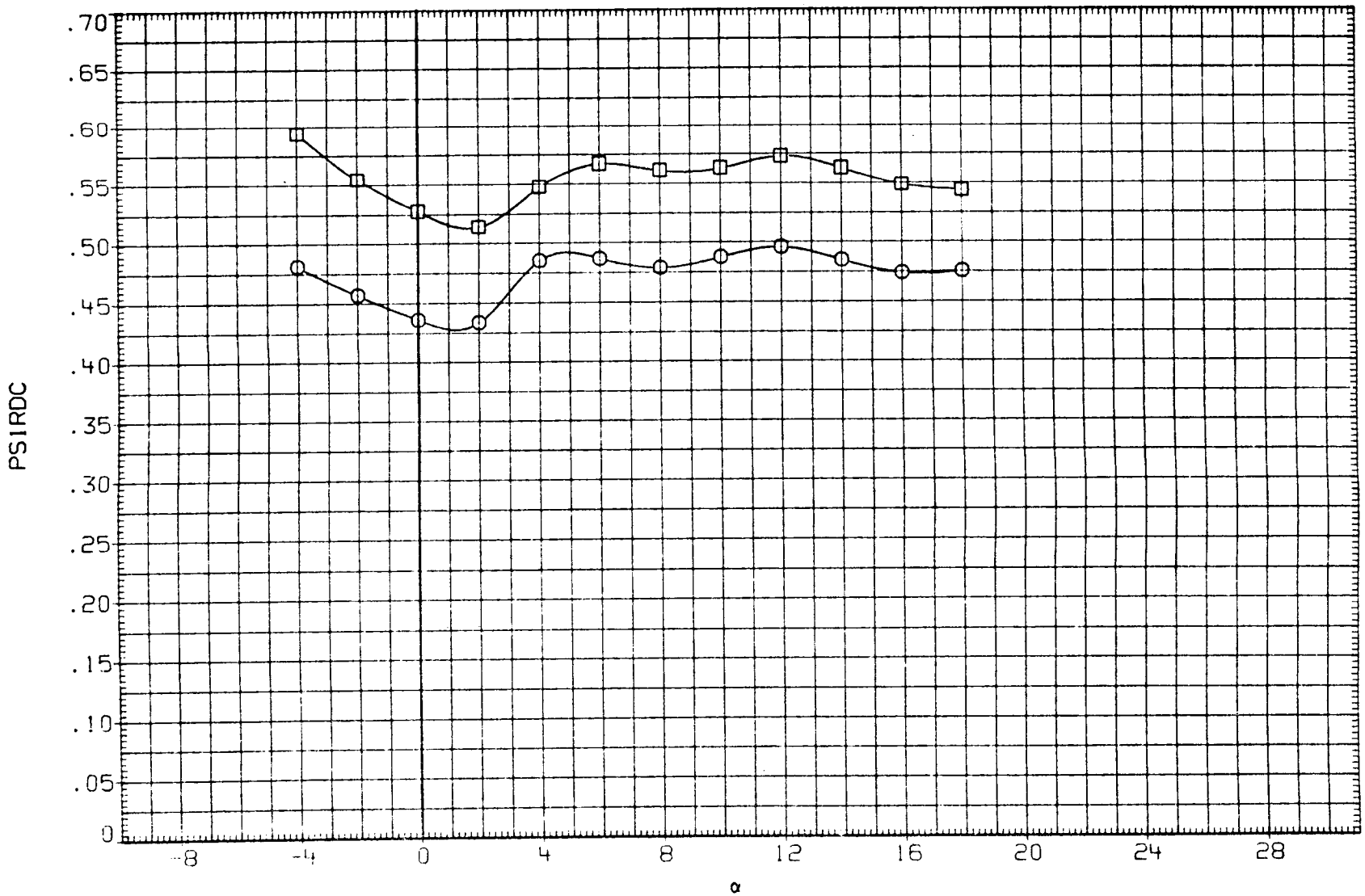


FIG. 50 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
RIGHT SIDE

(K)MACH = 1.05 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
RVRU14	○	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	.000	.000
RVRU15	□	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	2.000	.000

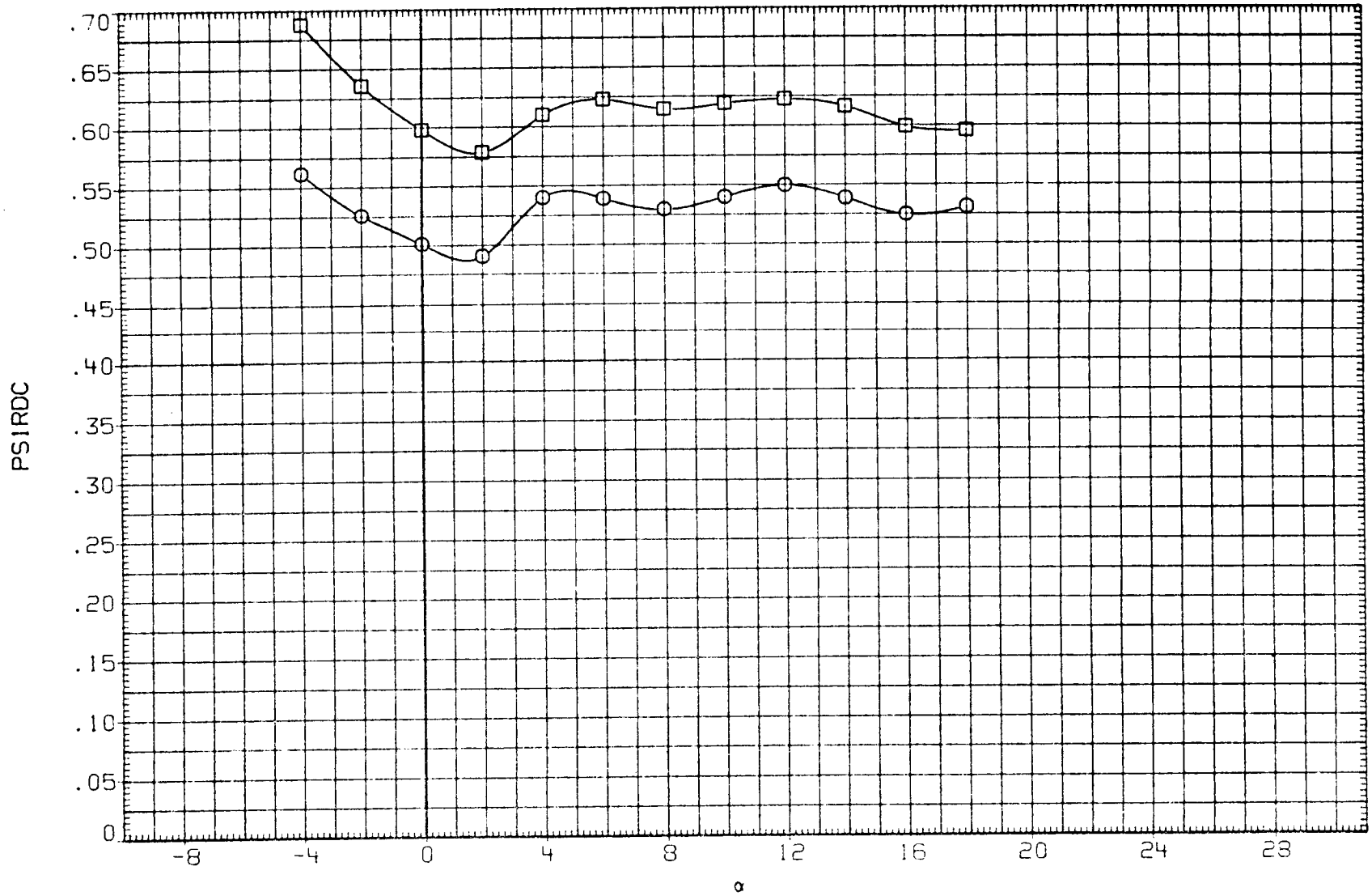


FIG. 50 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
RIGHT SIDE

(L)MACH = 1.10 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
RVRU14	○	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	.000	.000
RVRU15	□	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	2.000	.000

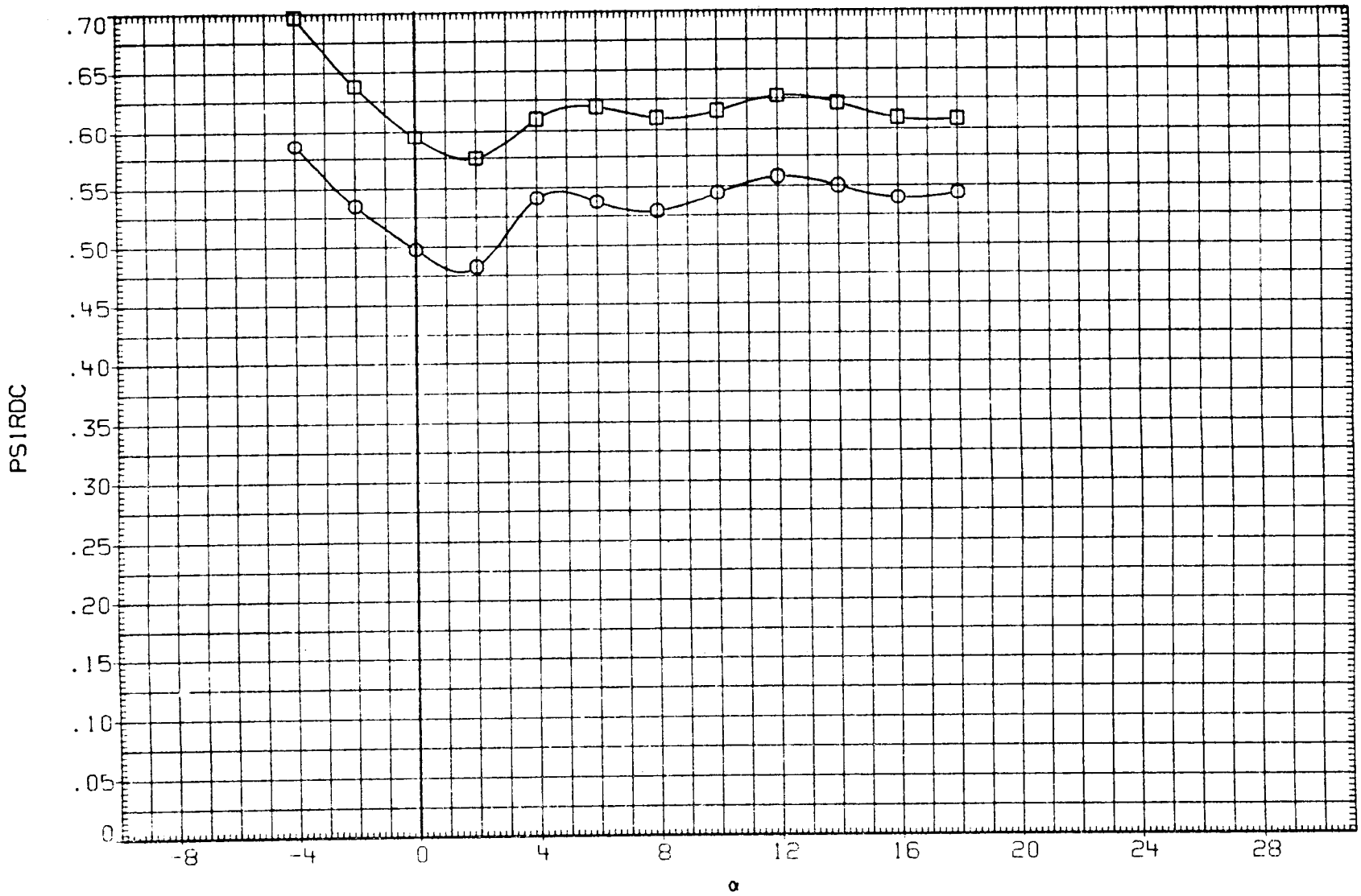


FIG. 50 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
RIGHT SIDE

(M)MACH = 1.15 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
RVRU14	○	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	.000	.000
RVRU15	□	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	2.000	.000

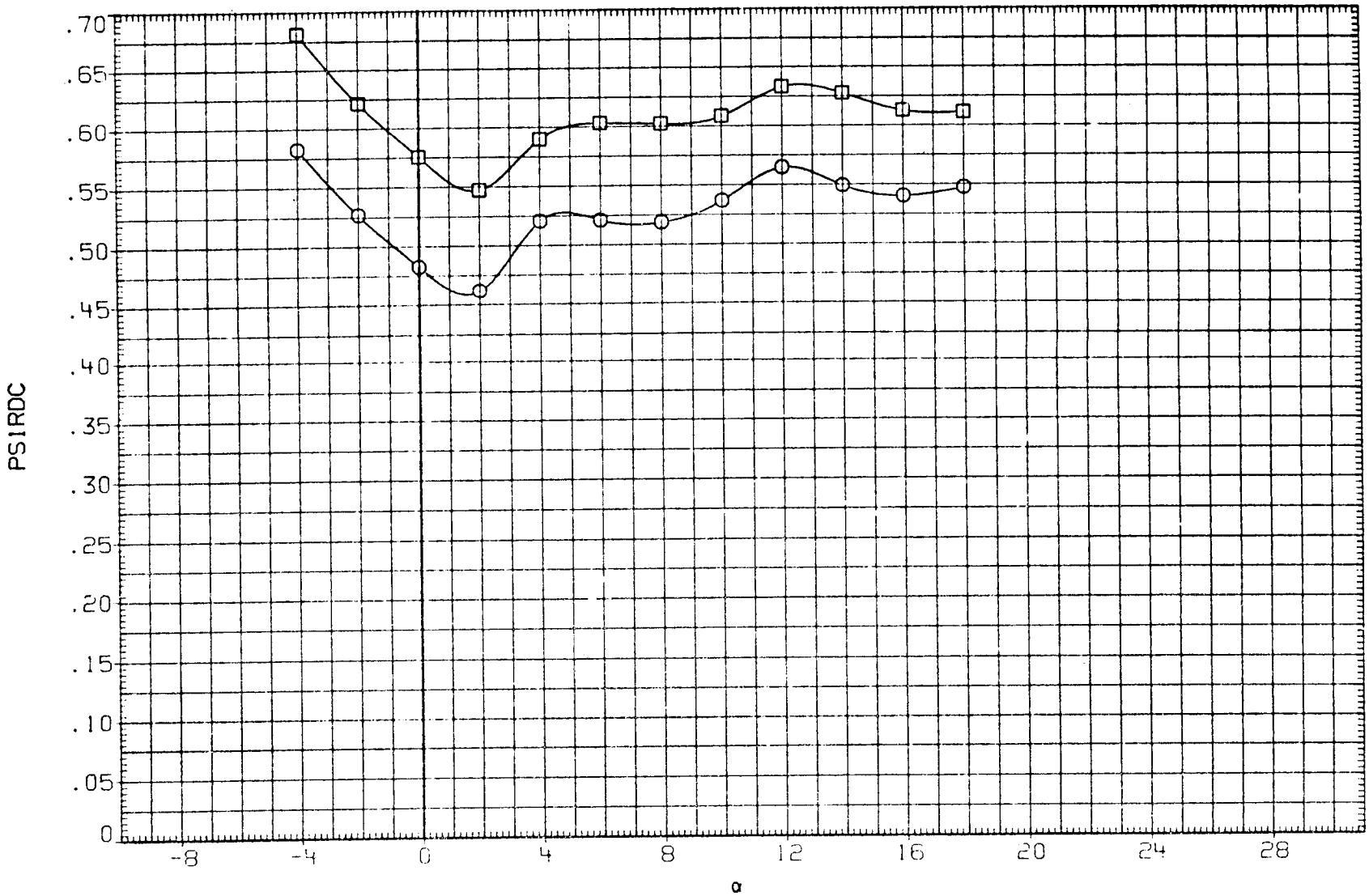


FIG. 50 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
RIGHT SIDE

(N)MACH = 1.20 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
RVRU14	○	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	.000	.000
RVRU15	□	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	2.000	.000

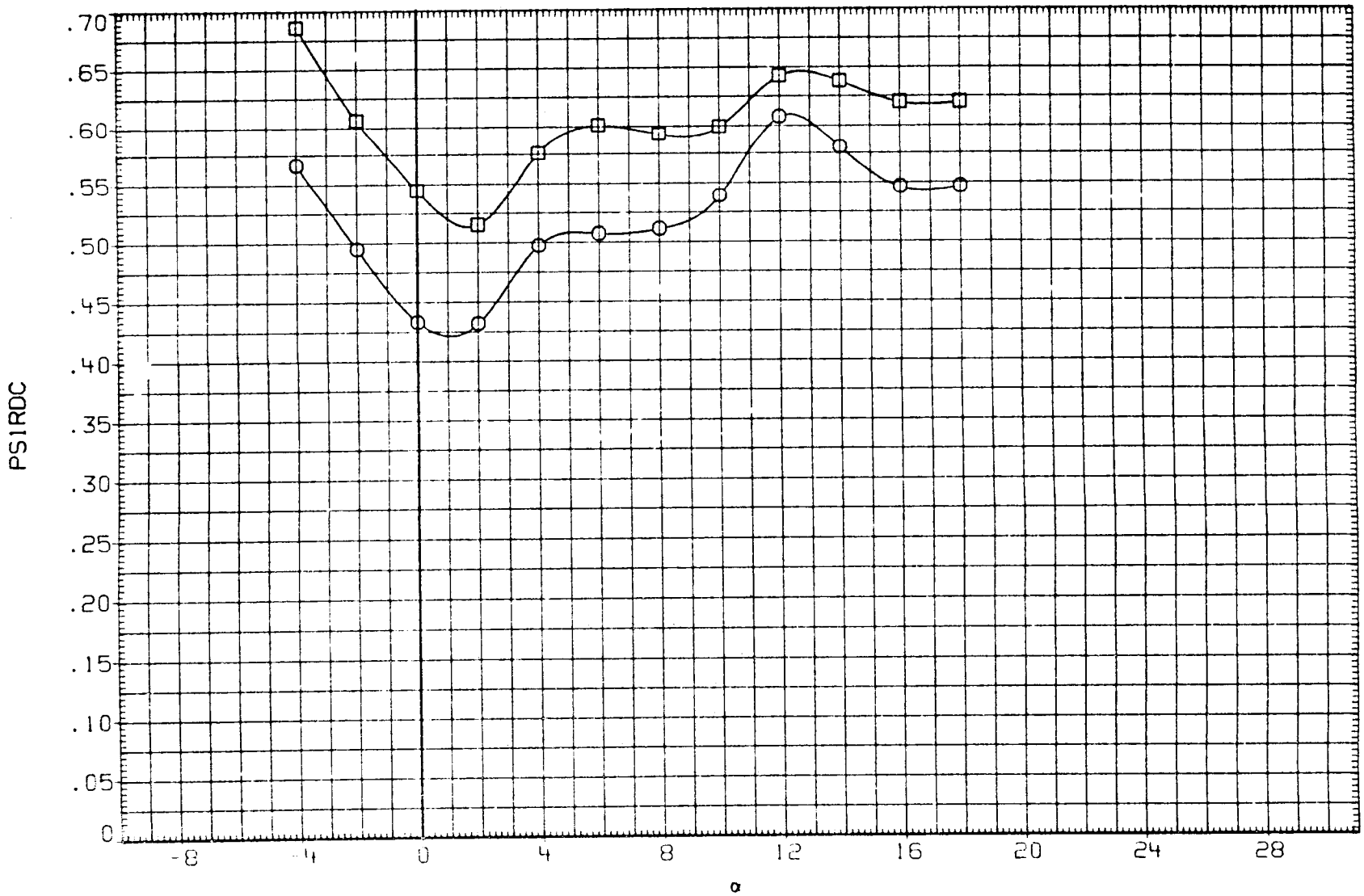


FIG. 50 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
RIGHT SIDE

(O)MACH = 1.30 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
RVRU14	○	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	.000	.000
RVRU15	□	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	2.000	.000

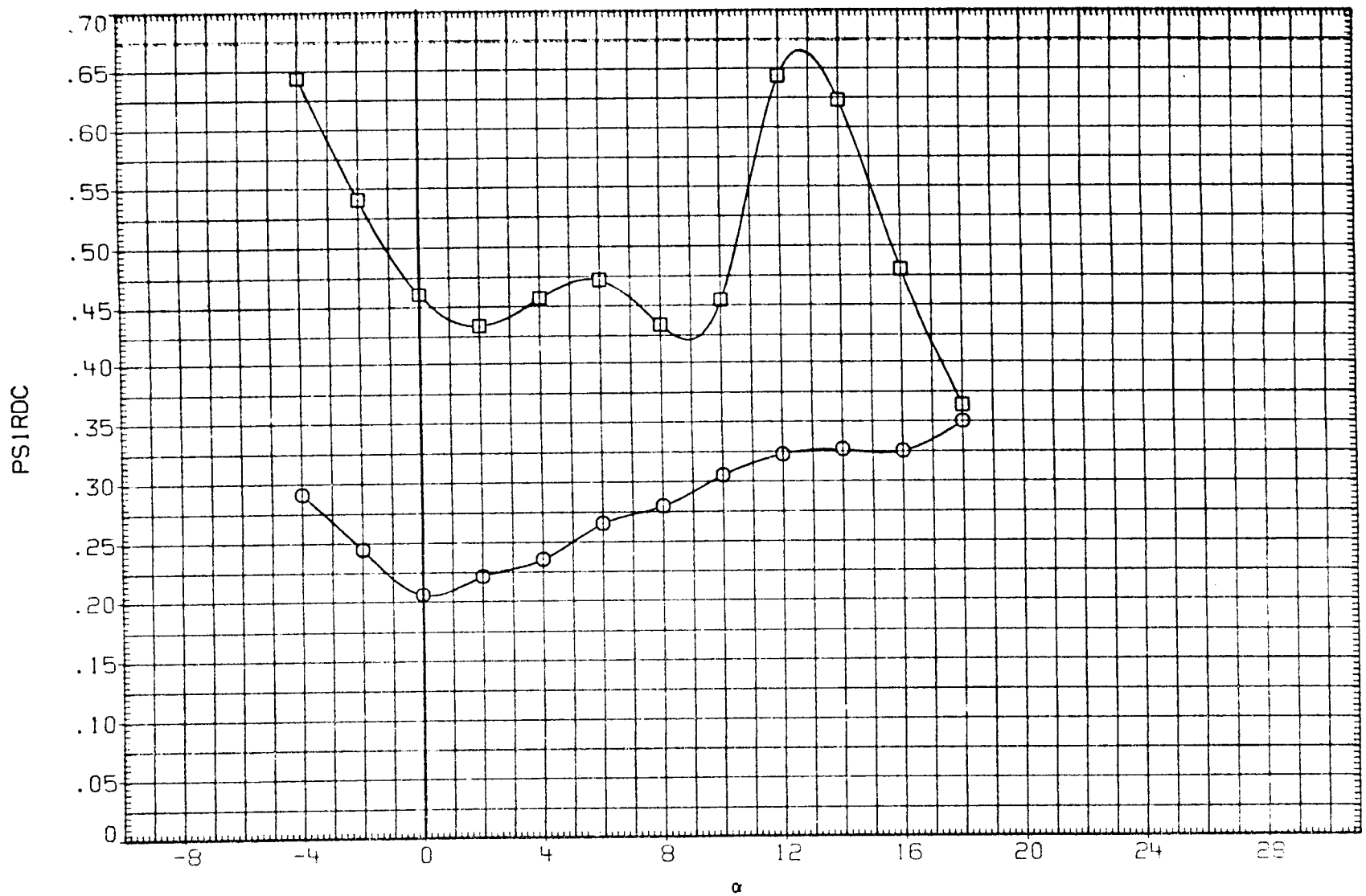


FIG. 50 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
RIGHT SIDE

(P)MACH = 1.40 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
RVRU14	○	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	.000	.000
RVRU15	□	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	2.000	.000

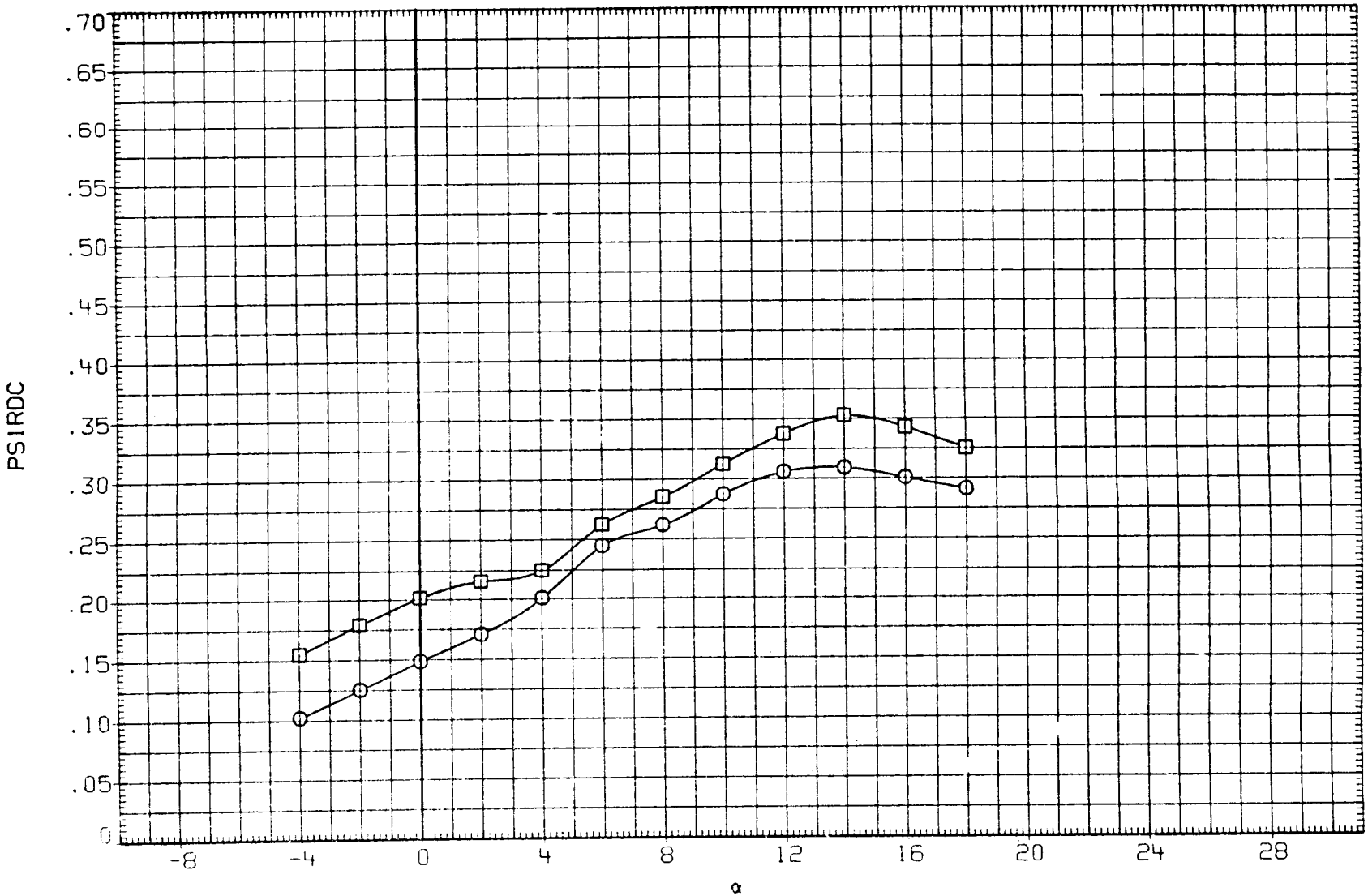


FIG. 50 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
RIGHT SIDE

(Q)MACH = 1.55 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA04	○	0A232 FN.15 A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA06	□	0A232 FN.15 A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

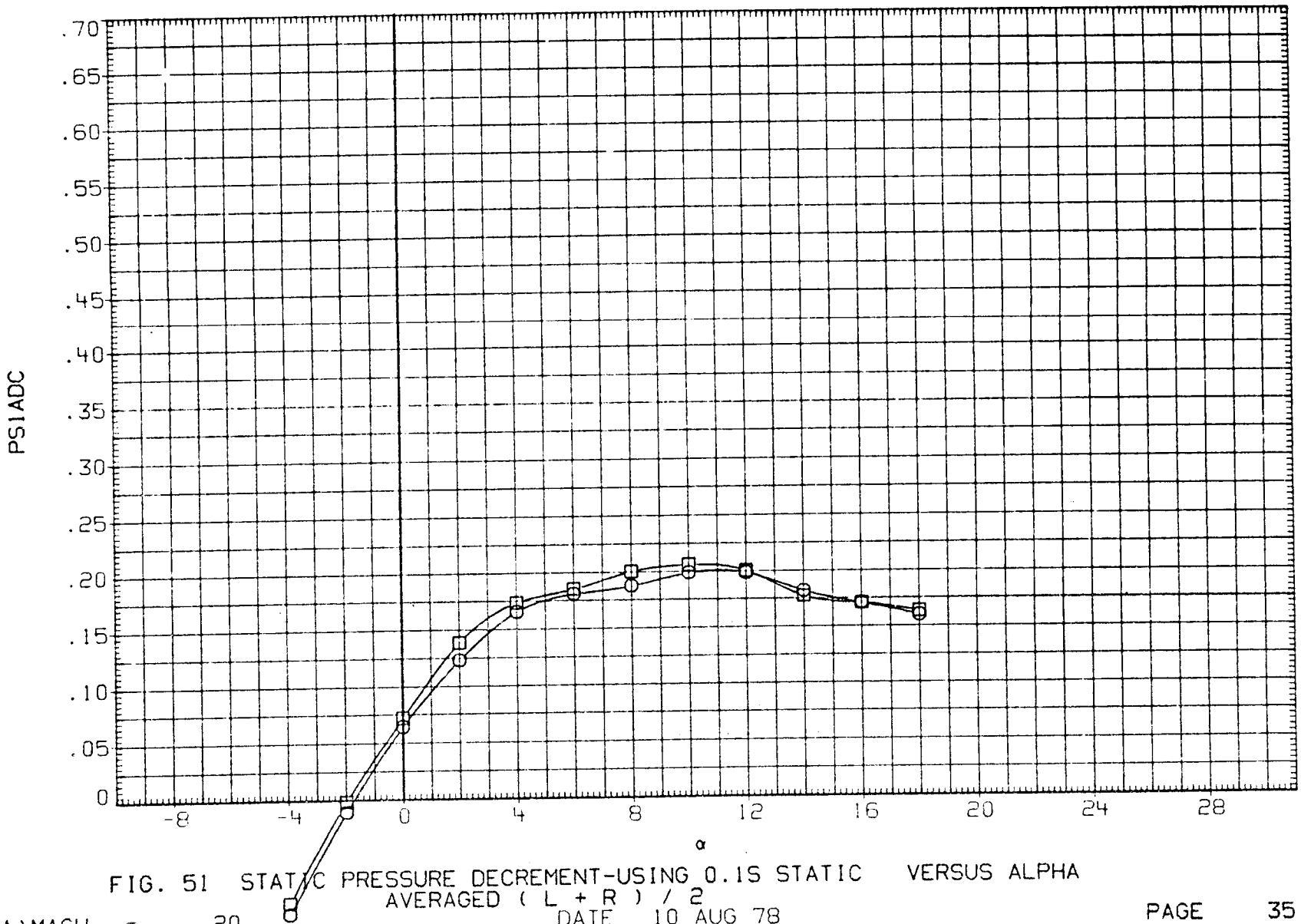


FIG. 51 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
AVERAGED (L + R) / 2

(A)MACH = .20 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA04	○	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA06	□	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

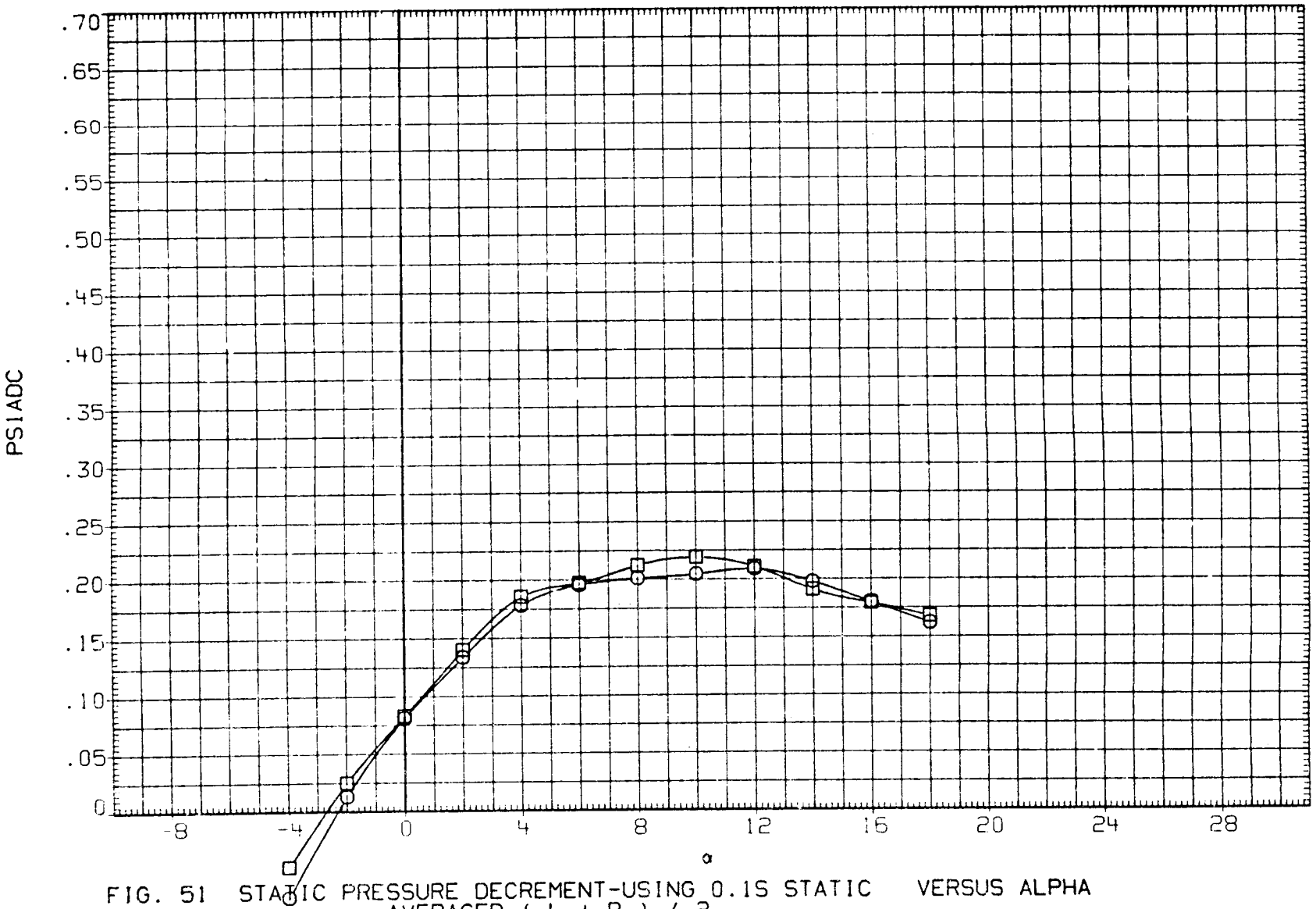


FIG. 51 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
AVERAGED (L + R) / 2

(B)MACH = .25 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA04	○	0A232 FN.15 A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA06	□	0A232 FN.15 A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

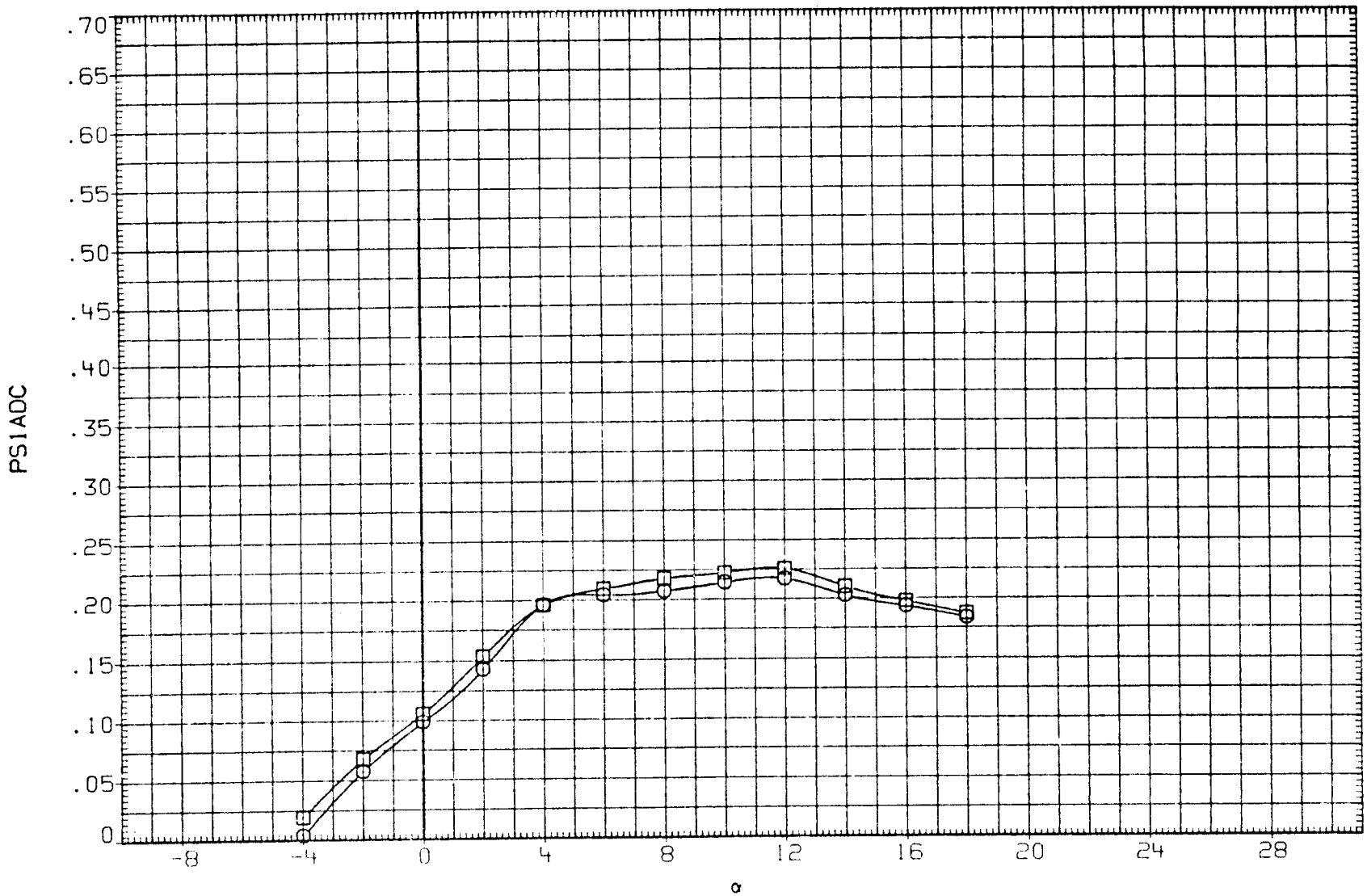


FIG. 51 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
AVERAGED (L + R) / 2

(C)MACH = .40 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA04	○	0A232 FN.15 A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA06	□	0A232 FN.15 A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

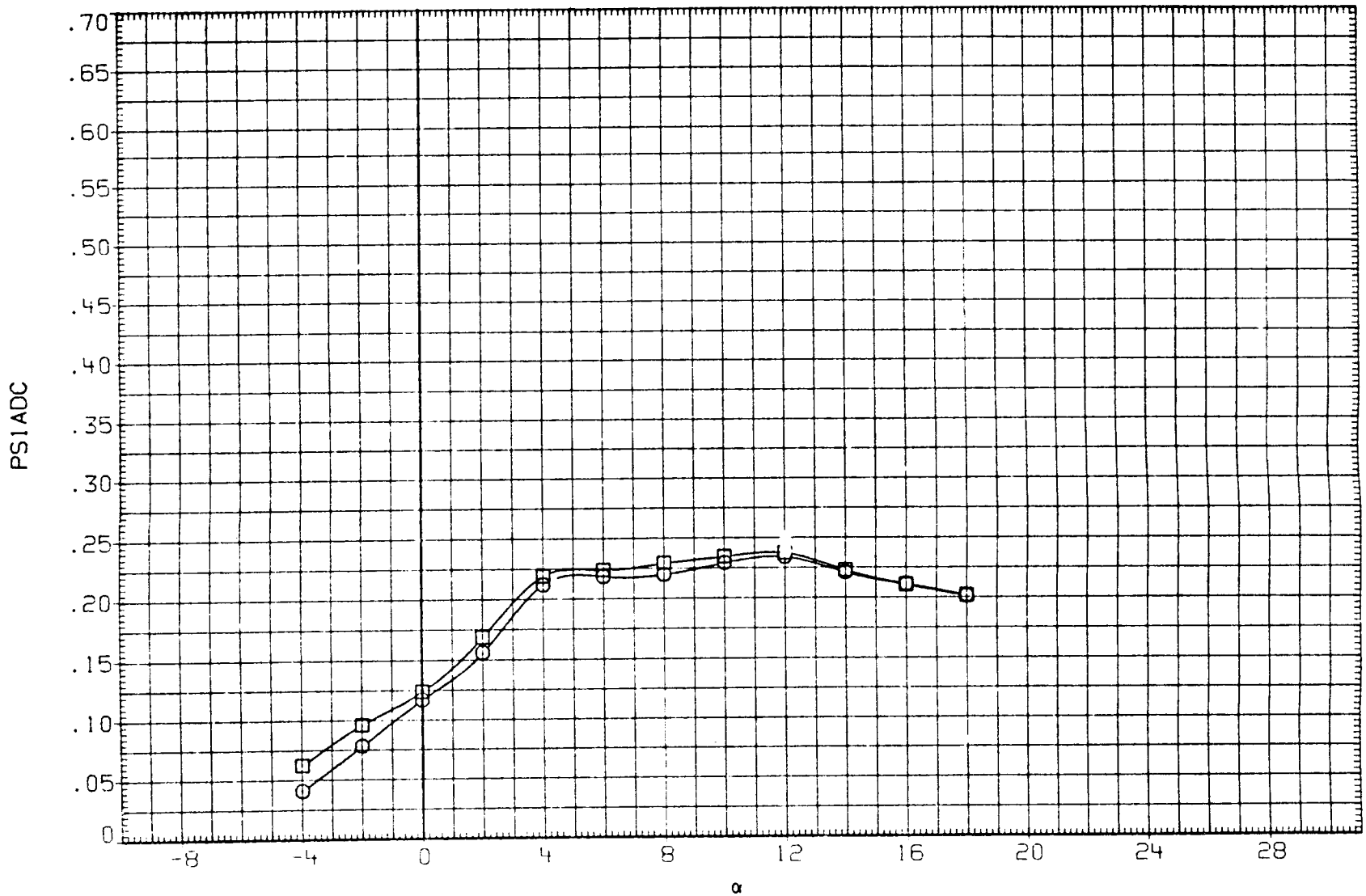


FIG. 51 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
AVERAGED (L + R) / 2

(D)MACH = .60

DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA04	○	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA06	□	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

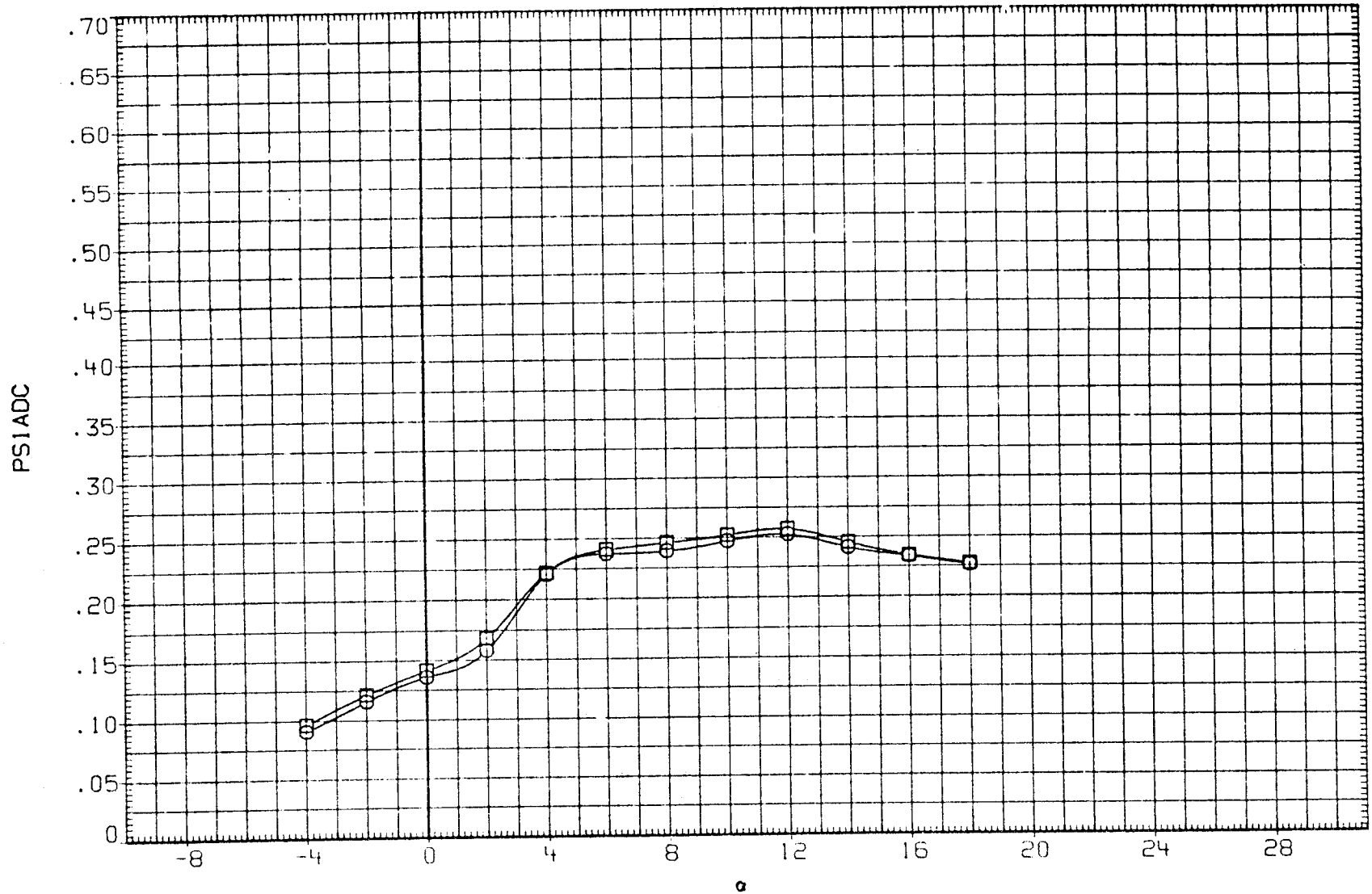


FIG. 51 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
AVERAGED (L + R) / 2

(E)MACH = .70 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA04	○	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA06	□	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

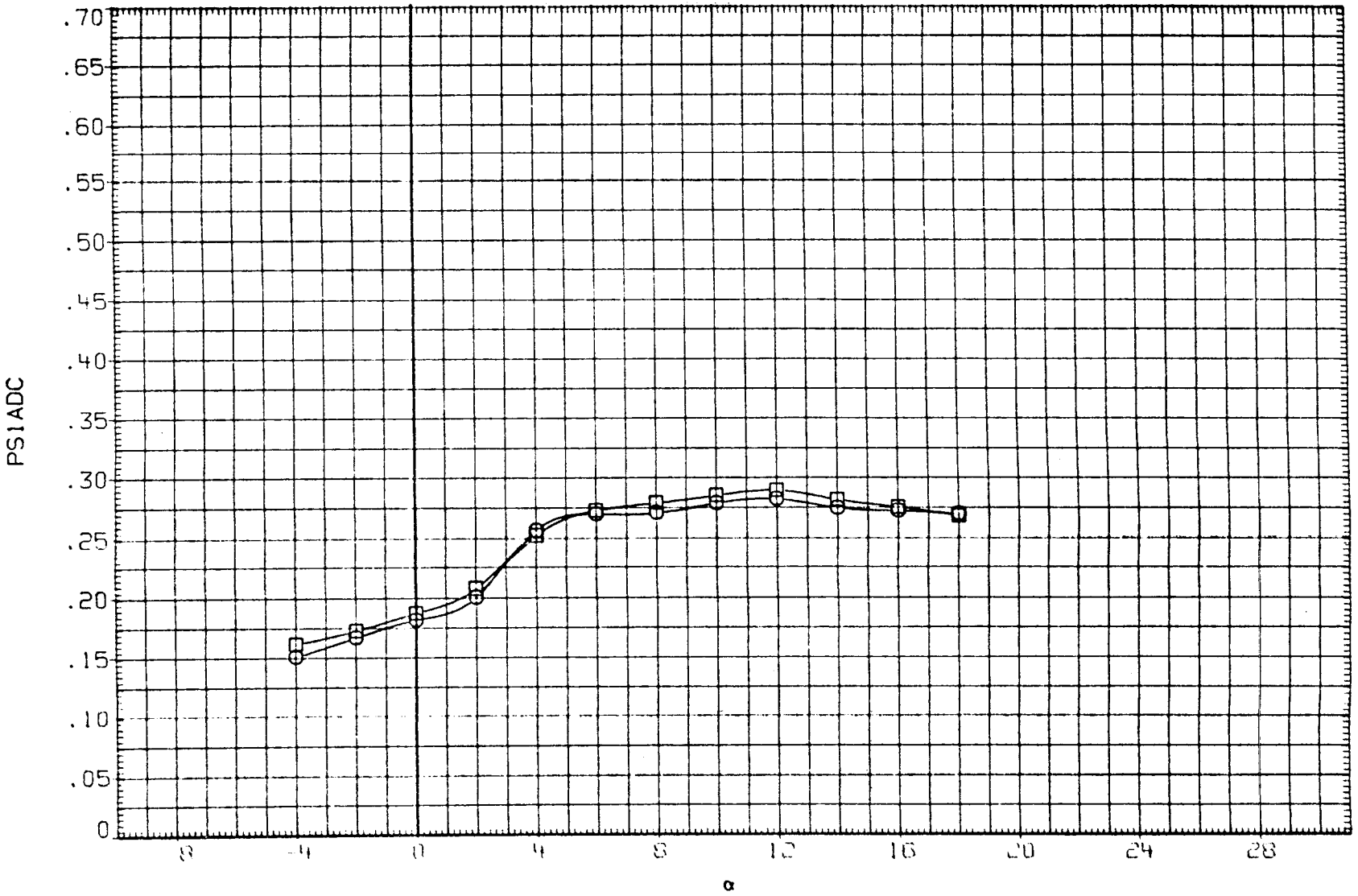


FIG. 51 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
AVERAGED (L + R) / 2

(F)MACH = .80 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA0[illegible]	○	0A232 FN .[illegible] A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA06	□	0A232 FN .[illegible] A .2P/S COMBINED AVERAGED (L+R)/2	2.00J	.000

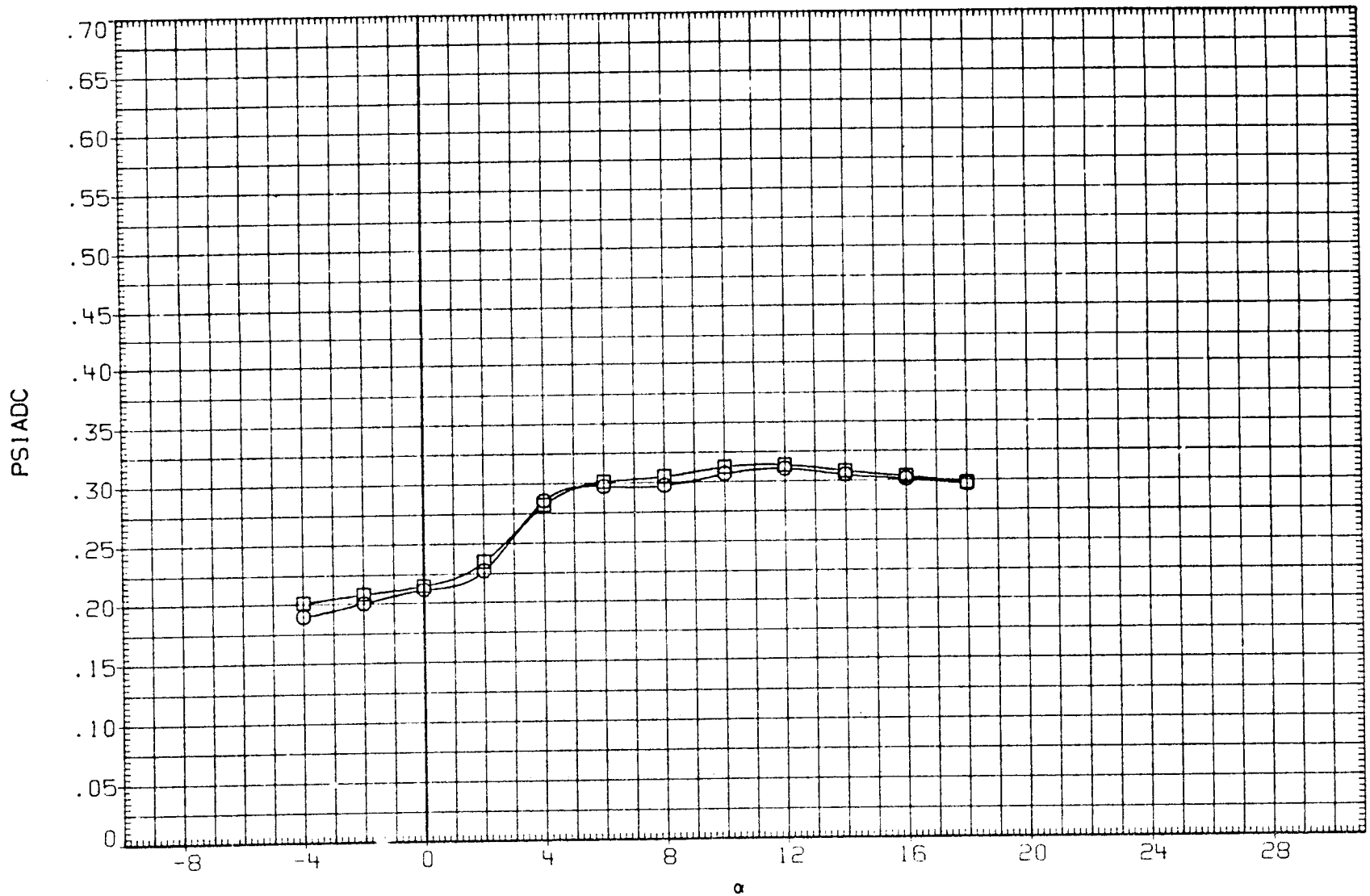


FIG. 51 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
AVERAGED (L + R) / 2

(G)MACH .= .85 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA04	○	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA06	□	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

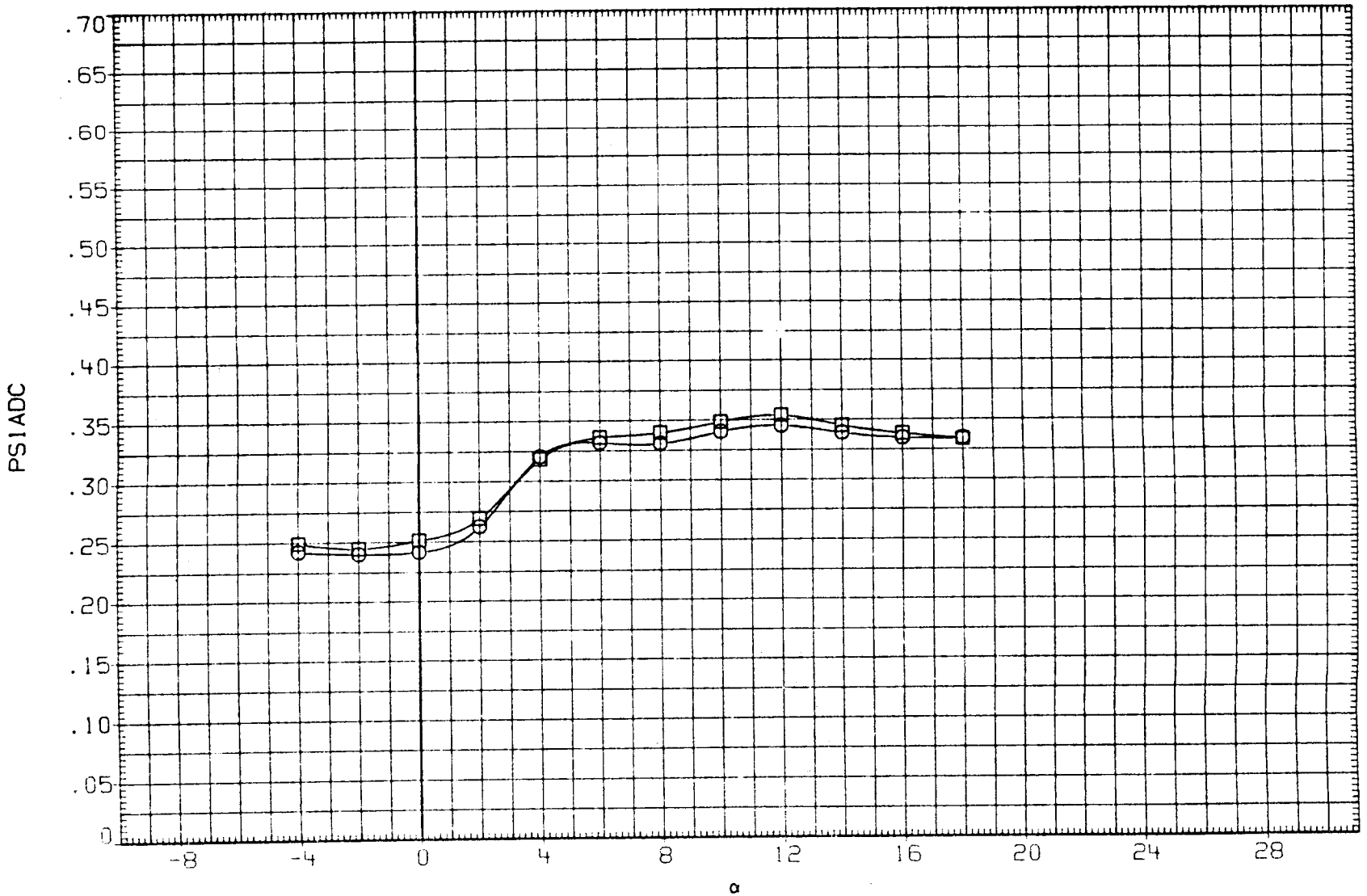


FIG. 51 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
AVERAGED (L + R) / 2

(H)MACH = .90 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA04	○	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA06	□	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

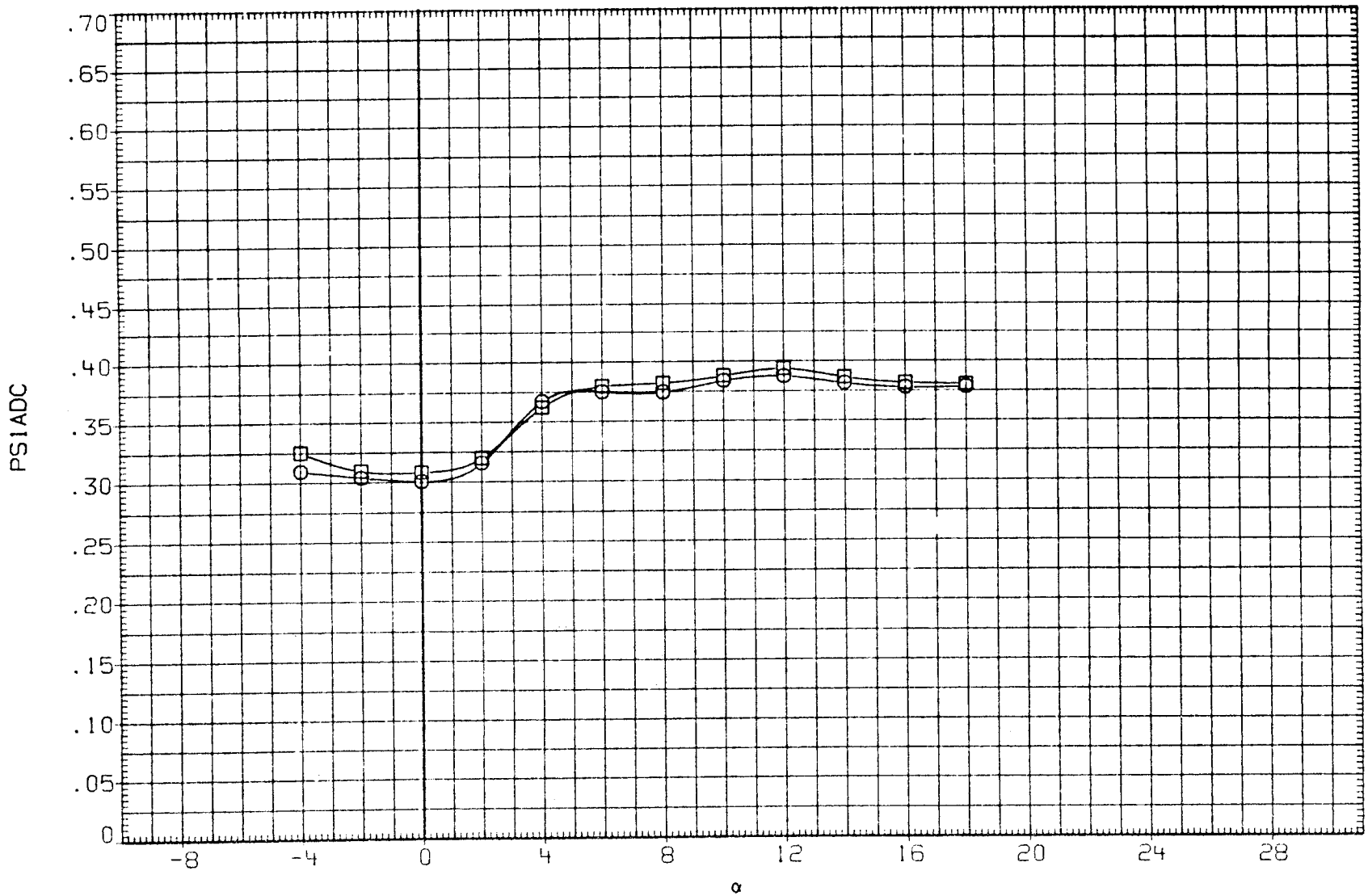


FIG. 51 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
AVERAGED (L + R) / 2

(I)MACH = .95 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA04	○	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA06	□	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

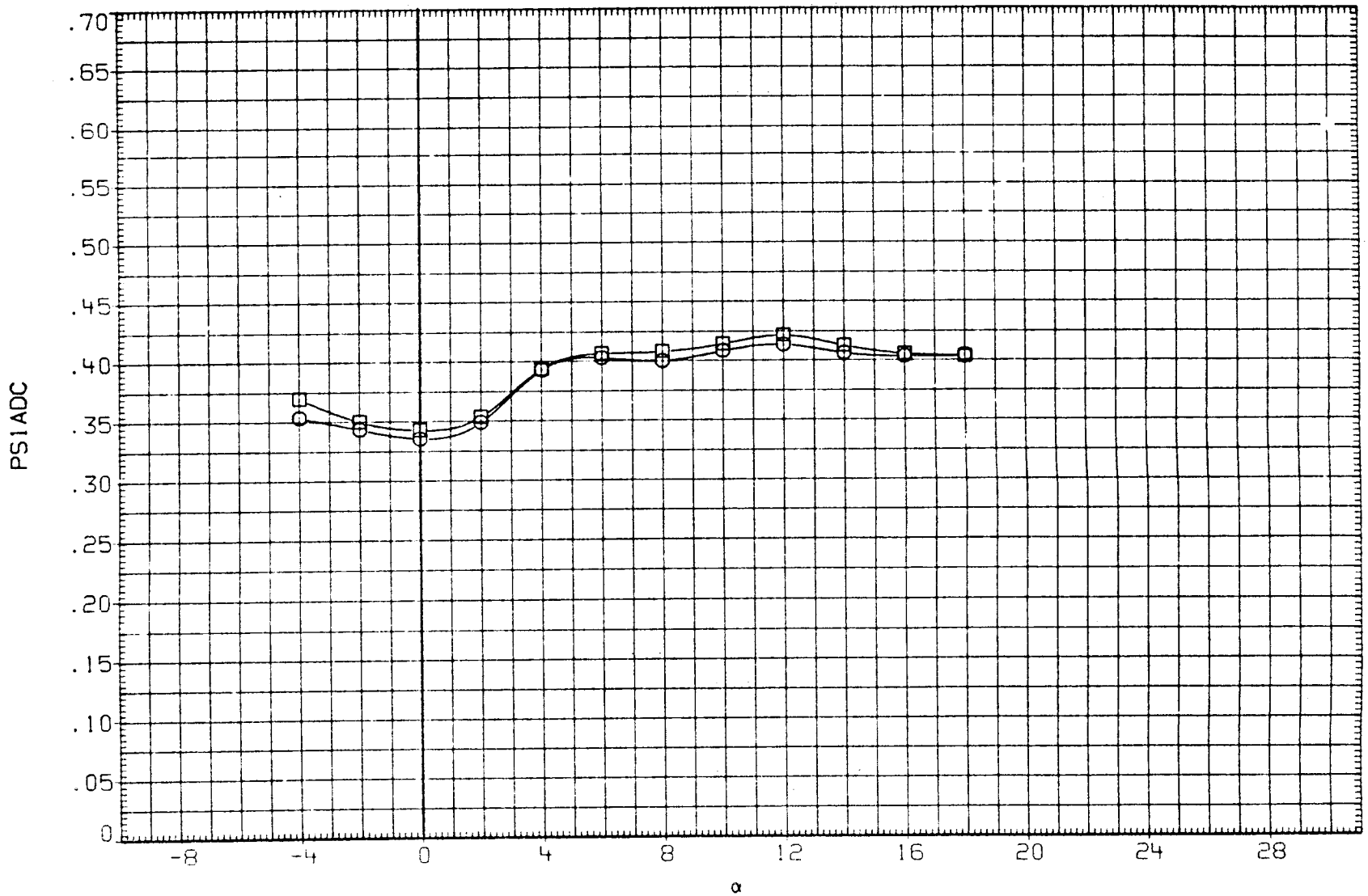


FIG. 51 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
AVERAGED (L + R) / 2

(J)MACH = .98 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA04	○	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA06	□	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

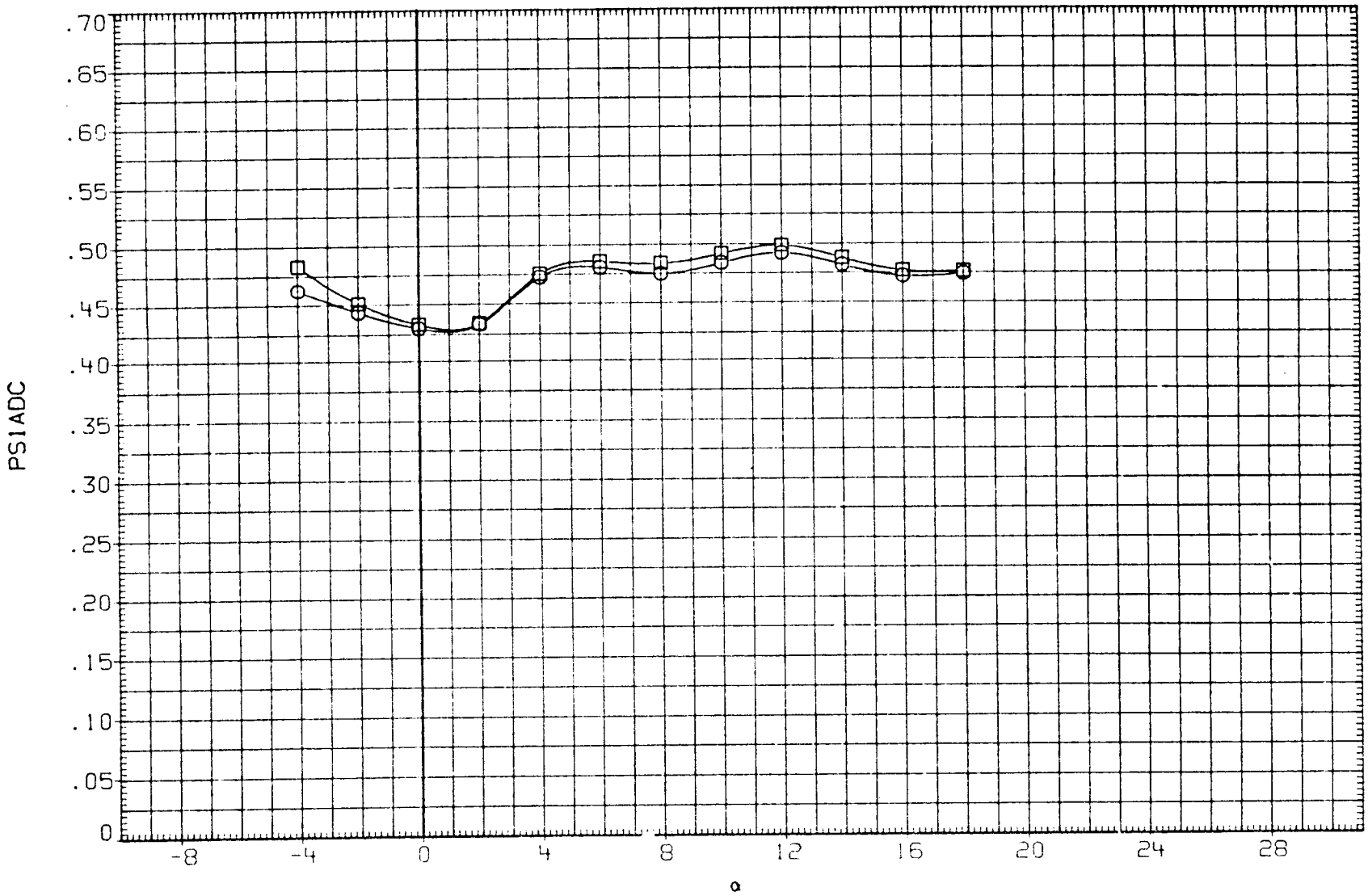


FIG. 51 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
AVERAGED (L + R) / 2

(K)MACH = 1.05 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA04	○	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA06	□	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

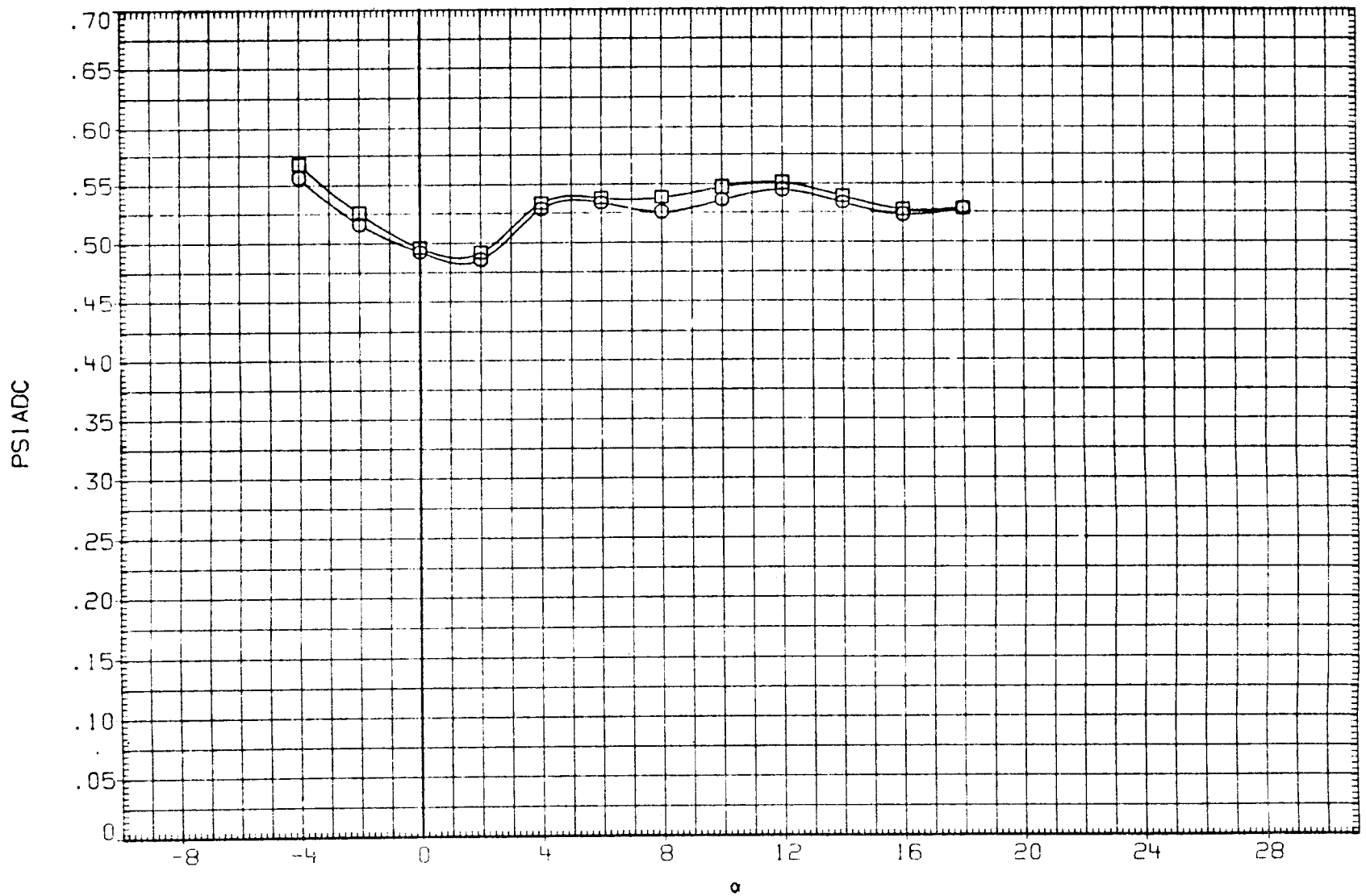


FIG. 51 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
AVERAGED (L + R) / 2

(L)MACH = 1.10 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA04	○	OA232 FN.15 A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA06	□	OA232 FN.15 A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

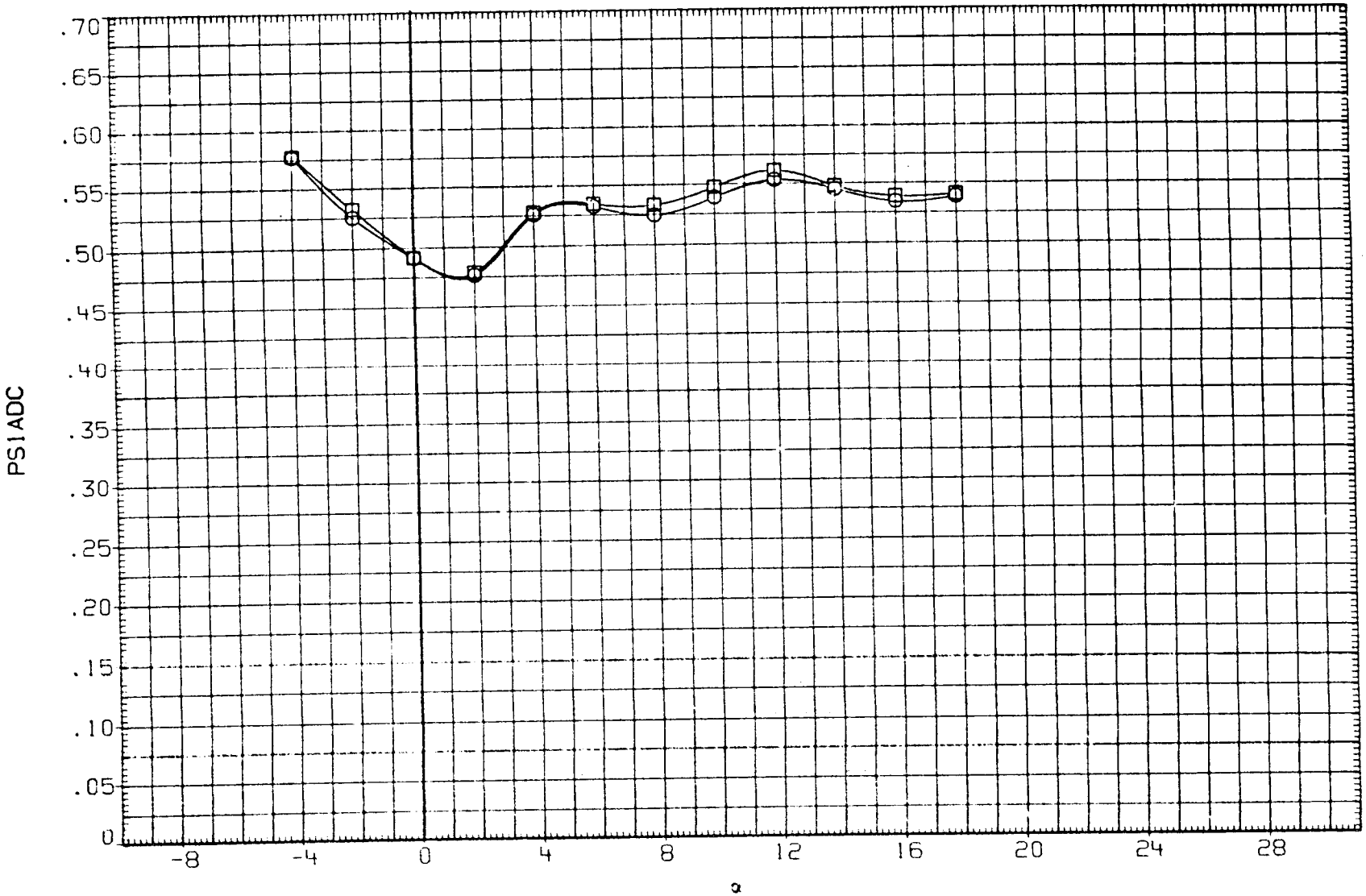


FIG. 51 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
AVERAGED (L + R) / 2

(M)MACH = 1.15

DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA04	○	0A232 FN.15 A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA06	□	0A232 FN.15 A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

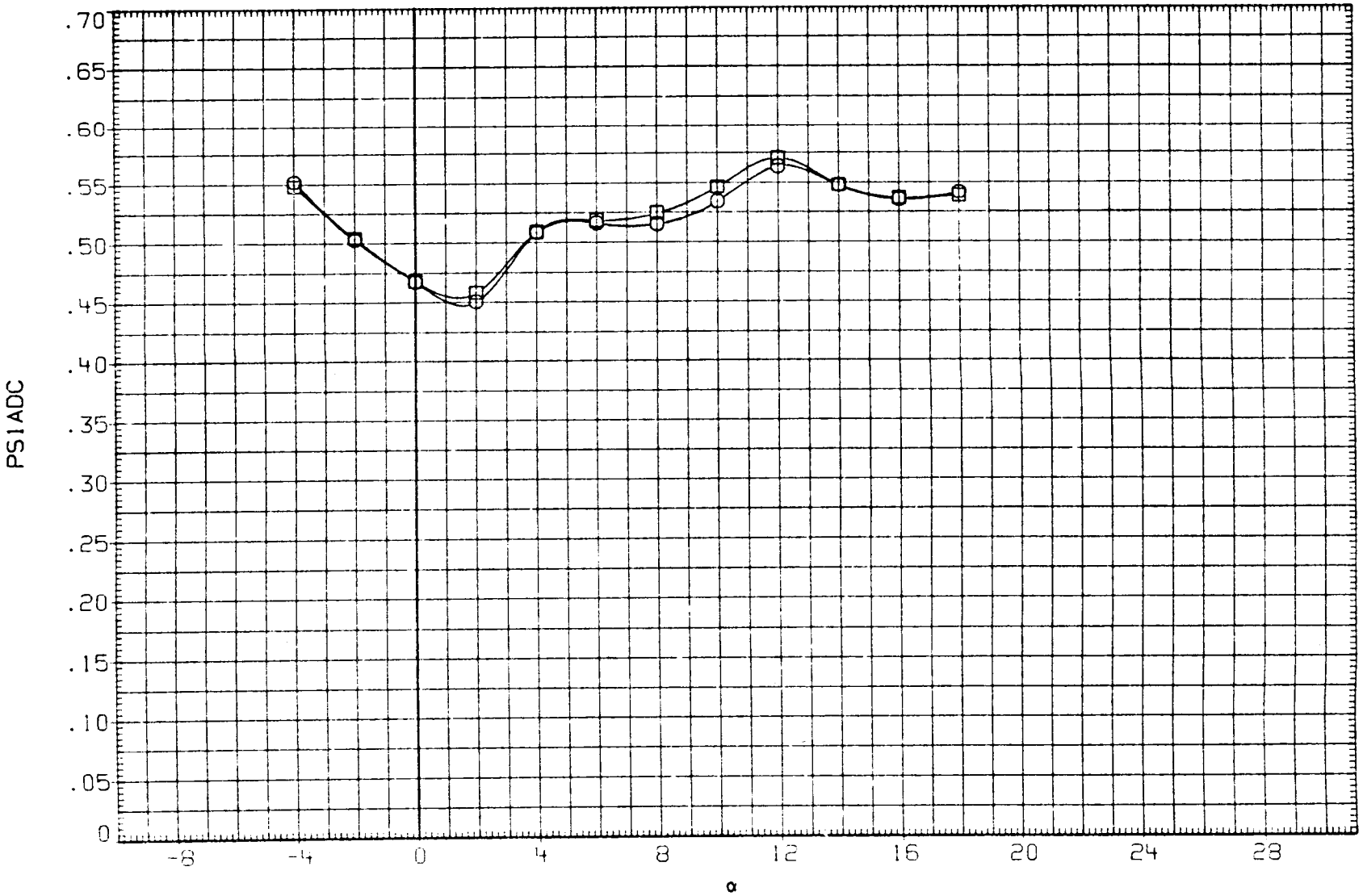


FIG. 51 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
AVERAGED (L + R) / 2

(N)MACH = 1.20 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA04	○	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA06	□	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

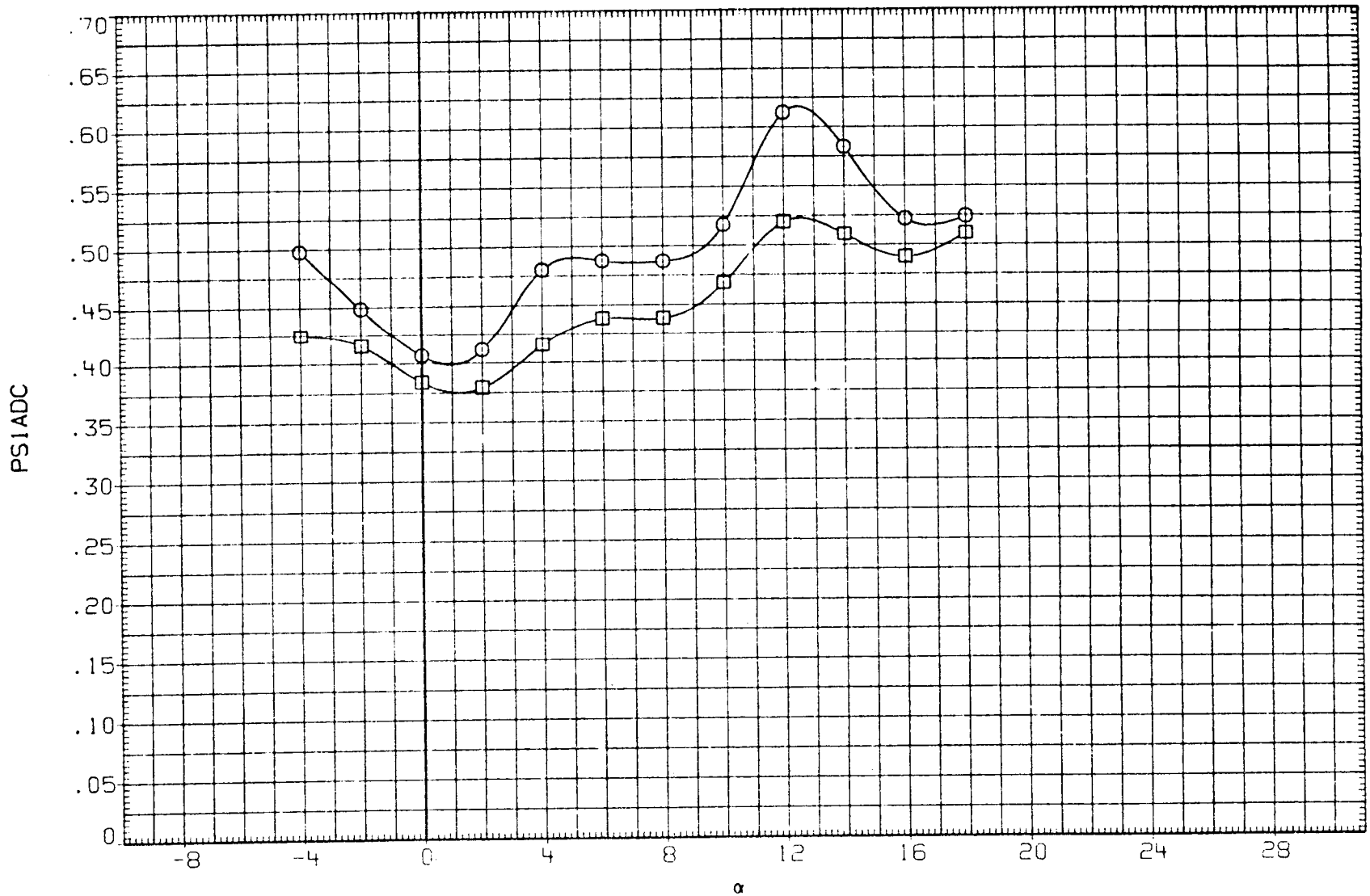


FIG. 51 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
AVERAGED (L + R) / 2

(O)MACH = 1.30 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA04	○	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA06	□	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

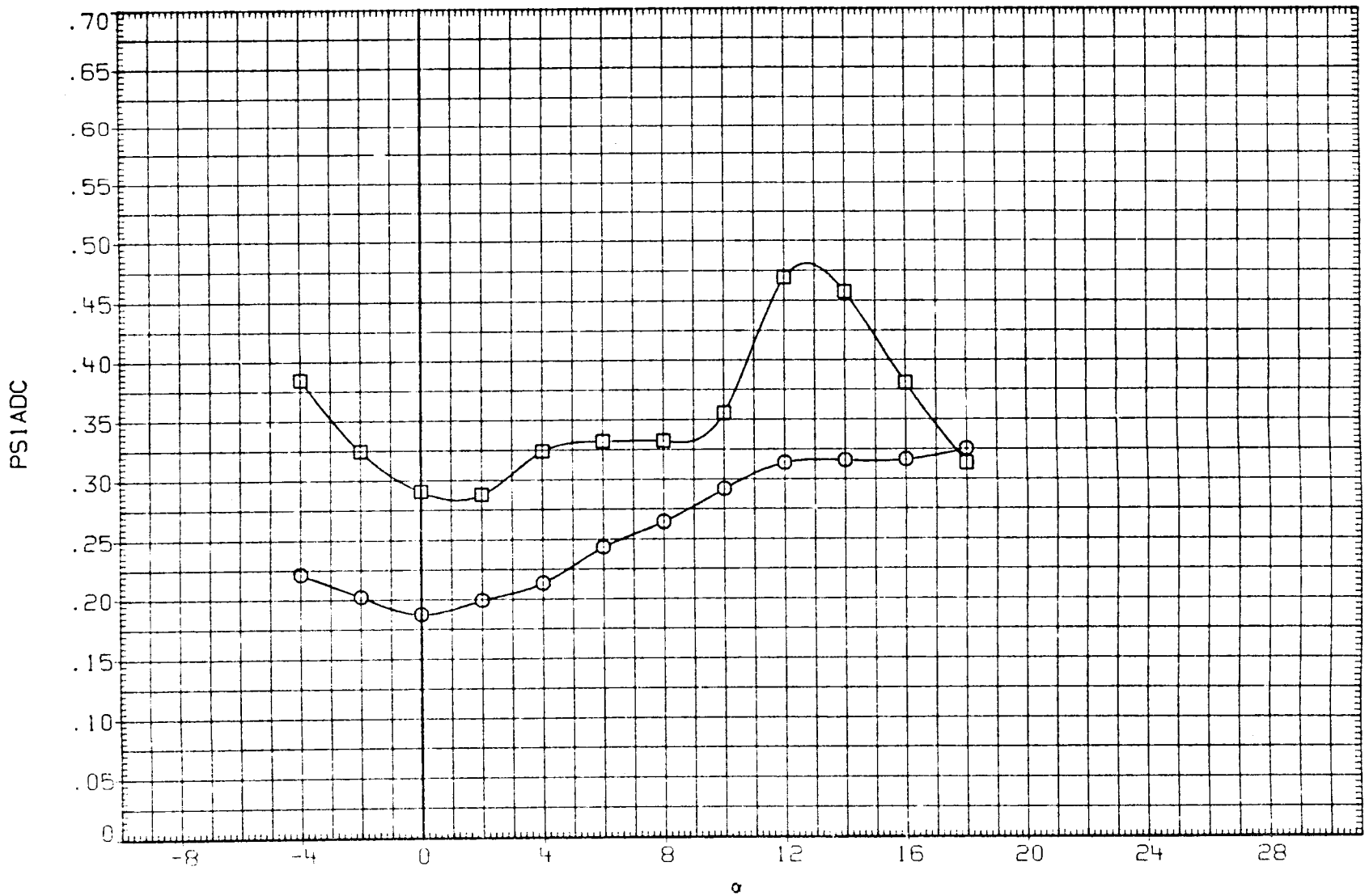


FIG. 51 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
AVERAGED (L + R) / 2

(P)MACH = 1.40 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA04	○	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA06	□	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

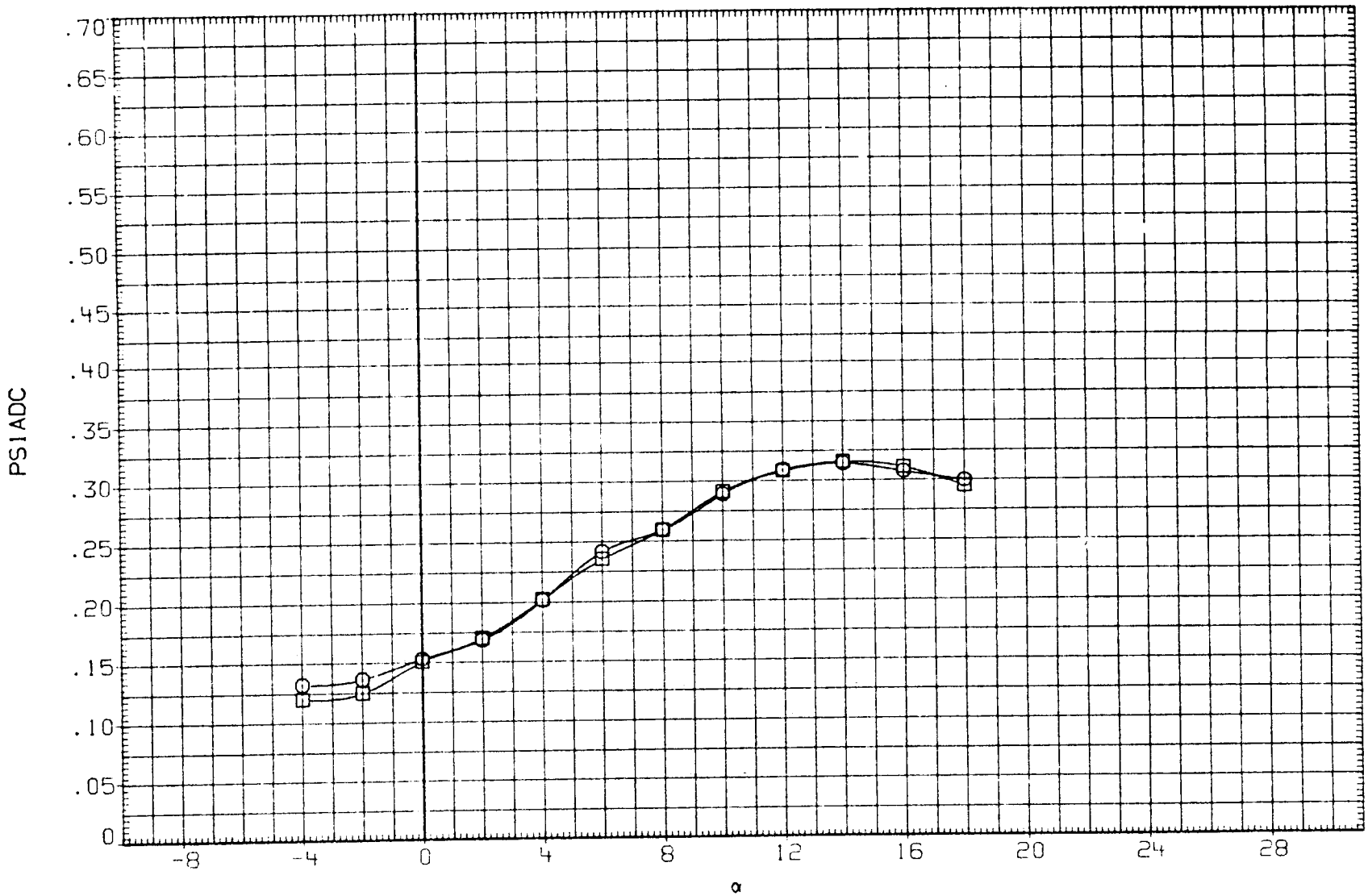


FIG. 51 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
AVERAGED (L + R) / 2

(Q)MACH = 1.55

DATE 10 AUG 78

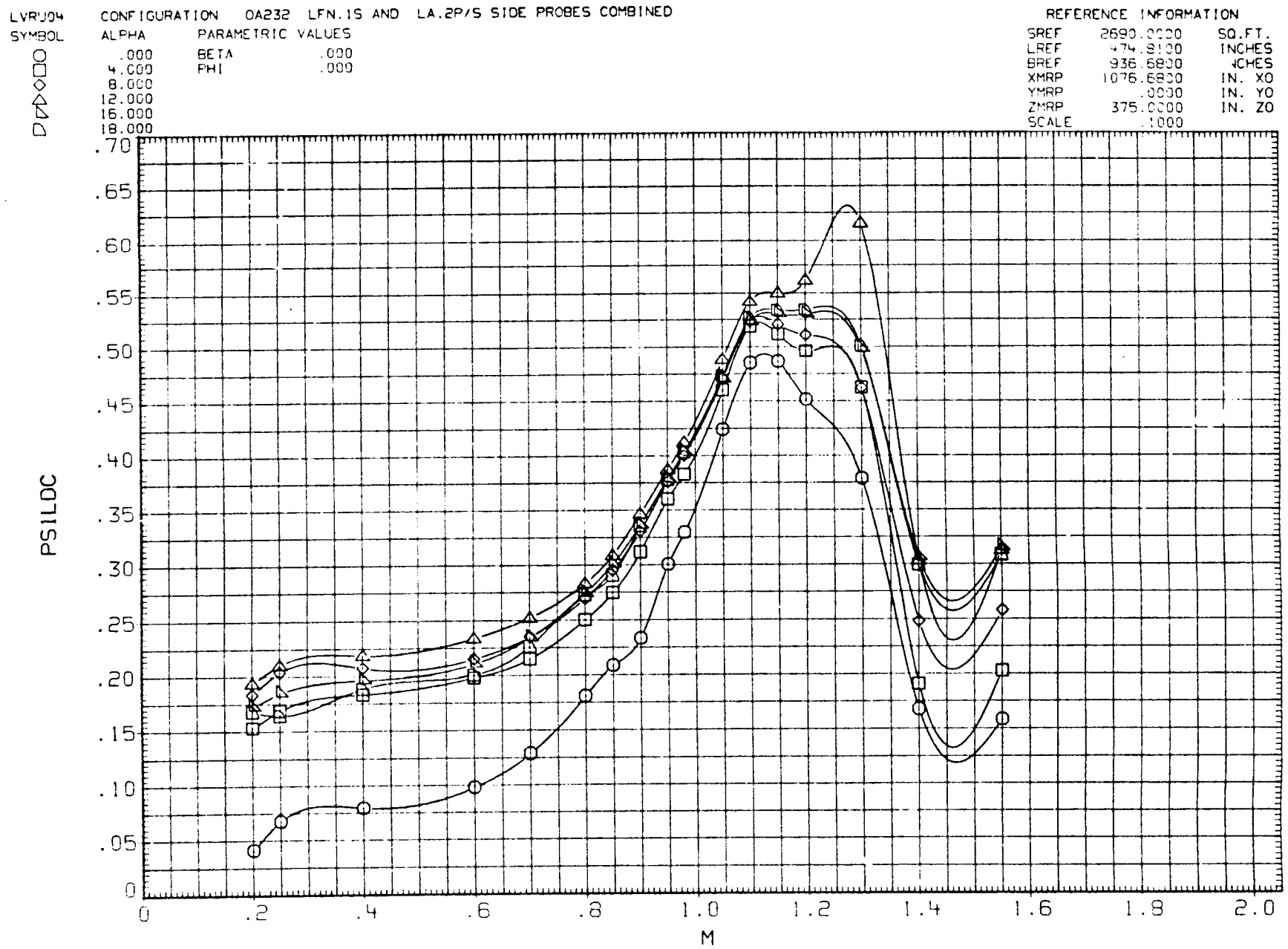


FIG. 52 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS MACH NUMBER
LEFT SIDE BETA = 0

DATE 10 AUG 78

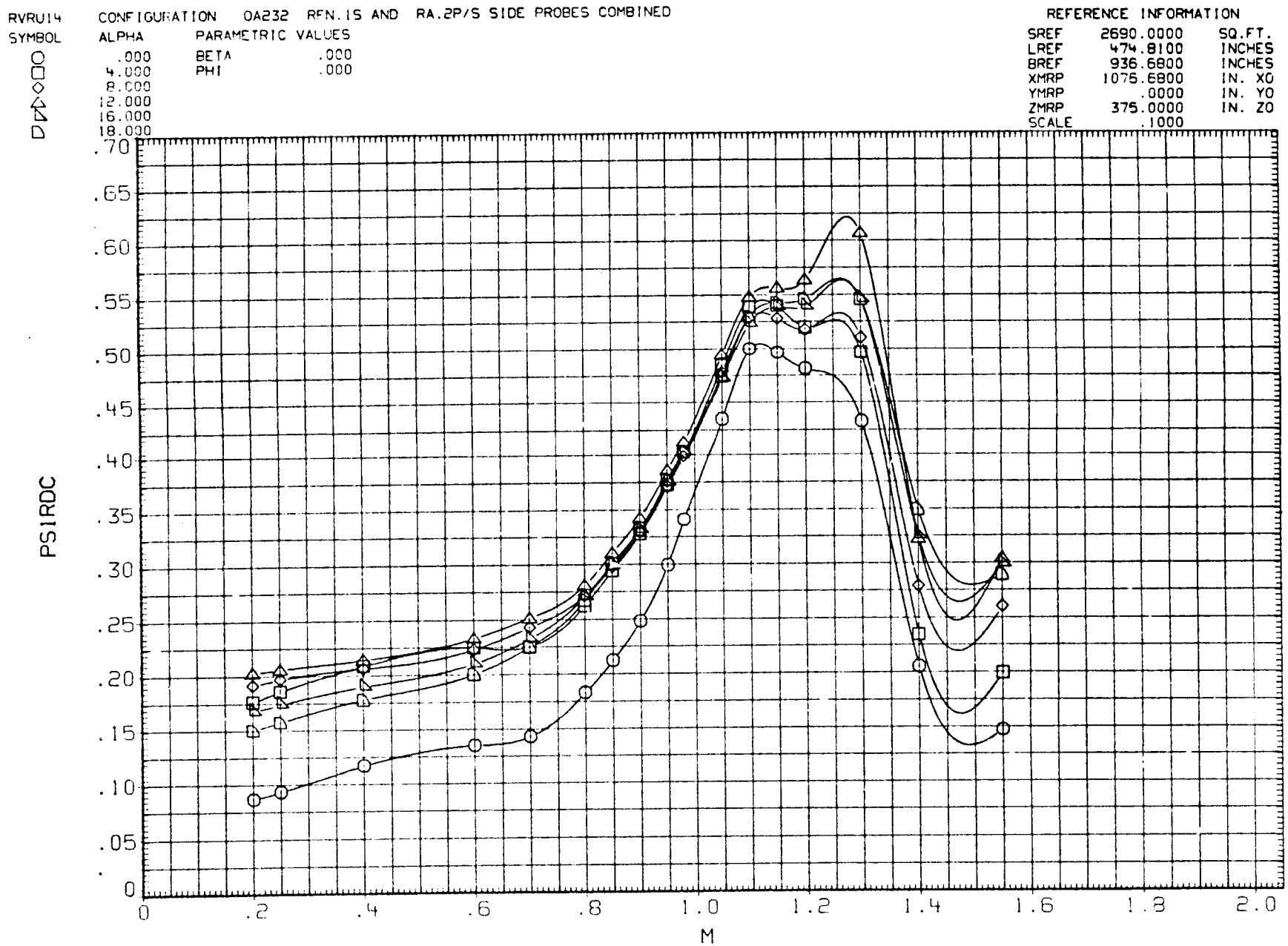


FIG. 53 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS MACH NUMBER
RIGHT SIDE BETA = 0

DATE 10 AUG 78

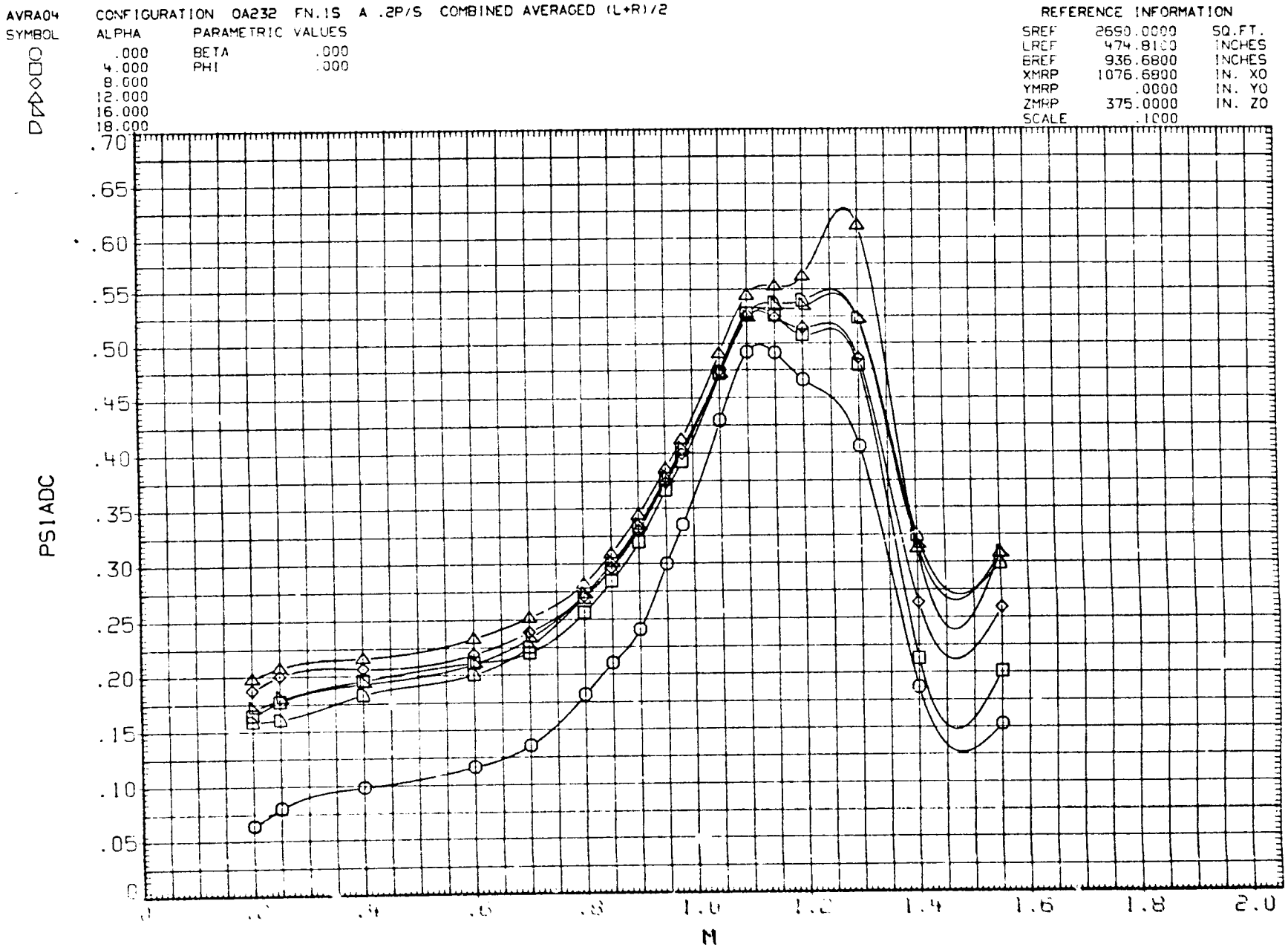


FIG. 54 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS MACH NUMBER
AVERAGED (L + R) / 2 BETA = 0
DATE 10 AUG 78

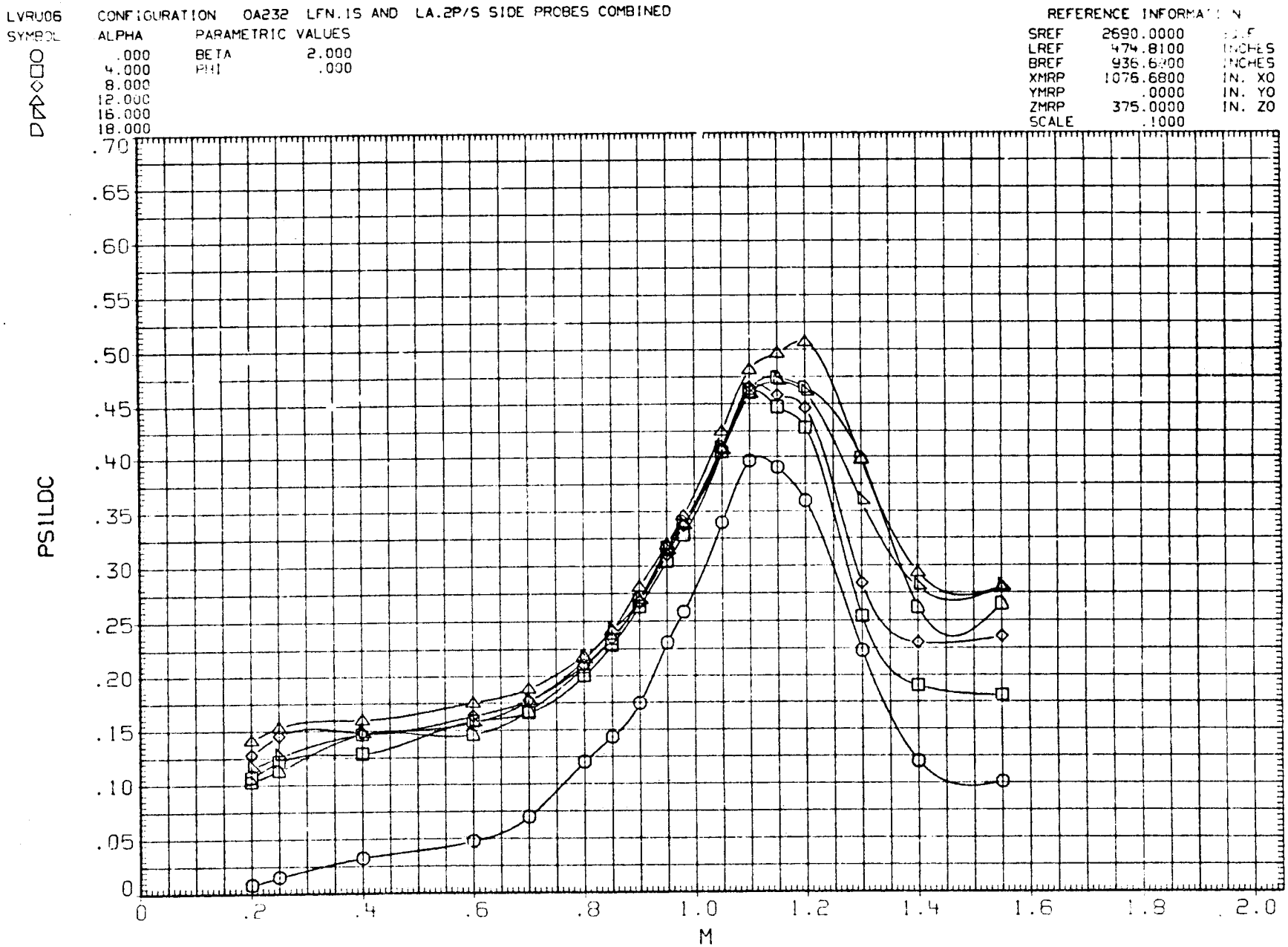


FIG. 55 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS MACH NUMBER
LEFT SIDE BETA = 2

DATE 10 AUG 78

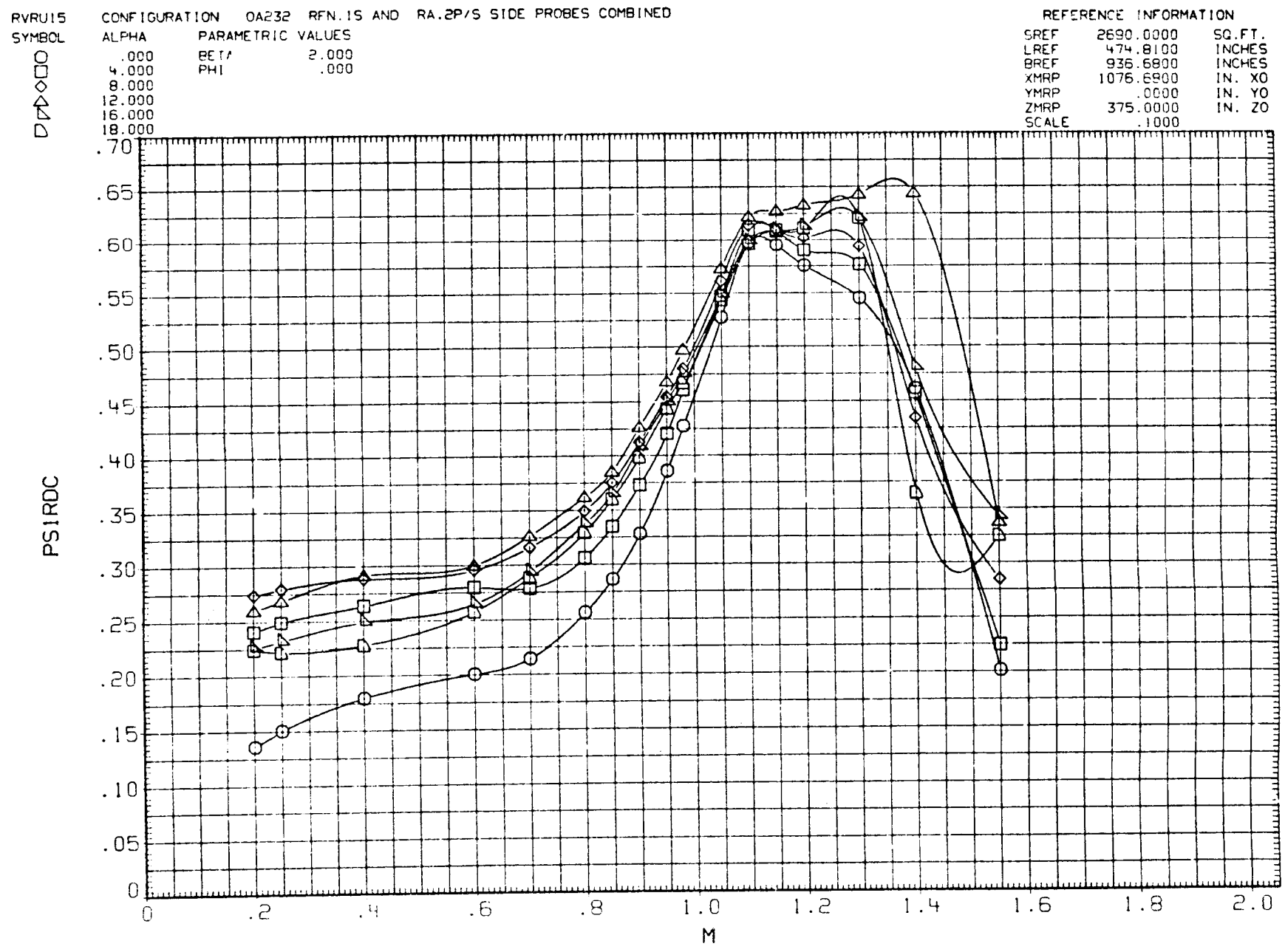


FIG. 56 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS MACH NUMBER
RIGHT SIDE BETA = 2

DATE 10 AUG 78

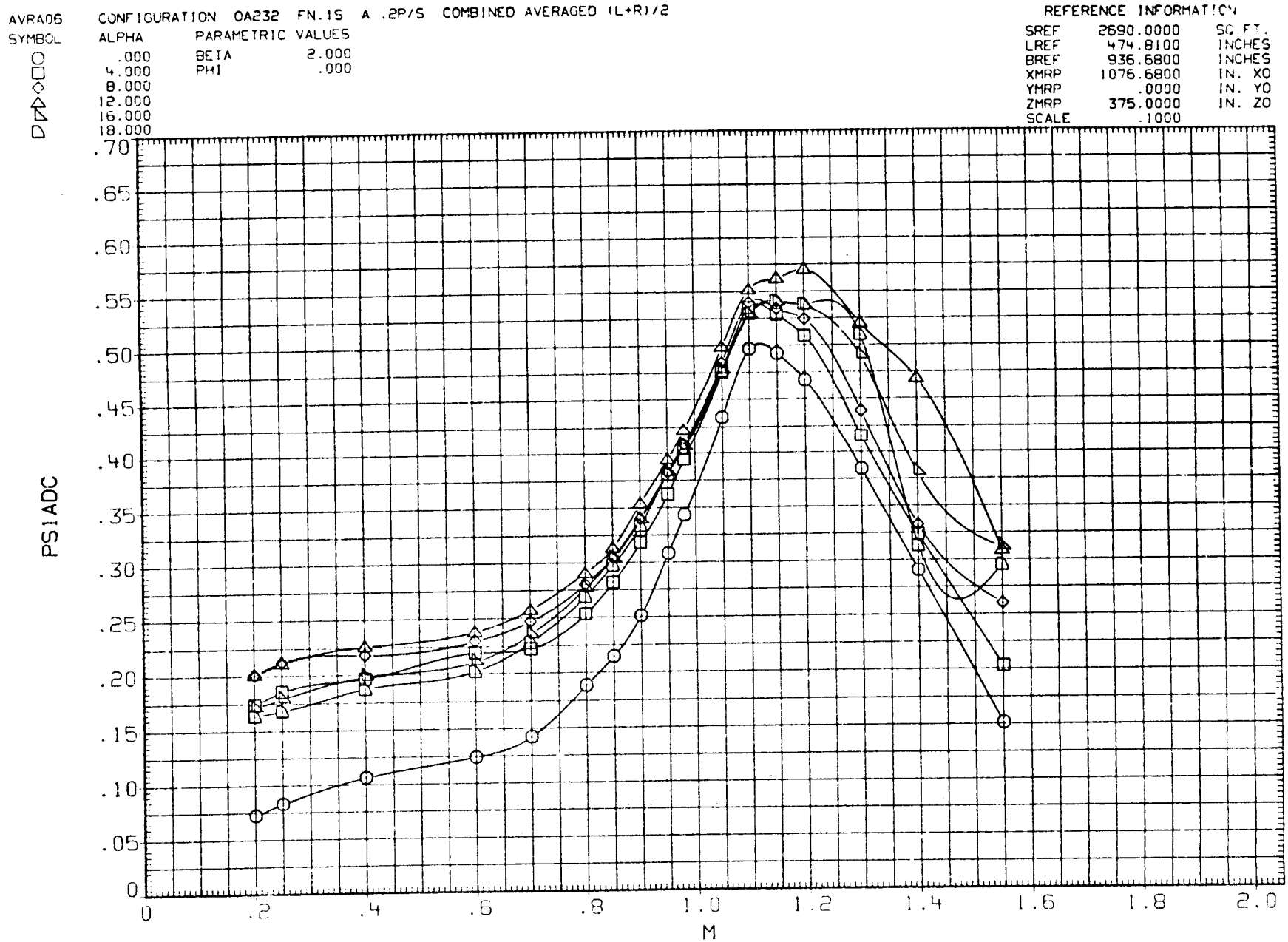


FIG. 57 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS MACH NUMBER
AVERAGED (L + R) / 2 BETA = 2
DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
RVR015	○	0A232	RFN.IS AND	RA.2P/S SIDE PROBES COMBINED		2.000	.000
LVR004	□	0A232	LFN.IS AND	LA.2P/S SIDE PROBES COMBINED		.000	.000
RVR014	◇	0A232	RFN.IS AND	RA.2P/S SIDE PROBES COMBINED		.000	.000
LVR006	△	0A232	LFN.IS AND	LA.2P/S SIDE PROBES COMBINED		2.000	.000

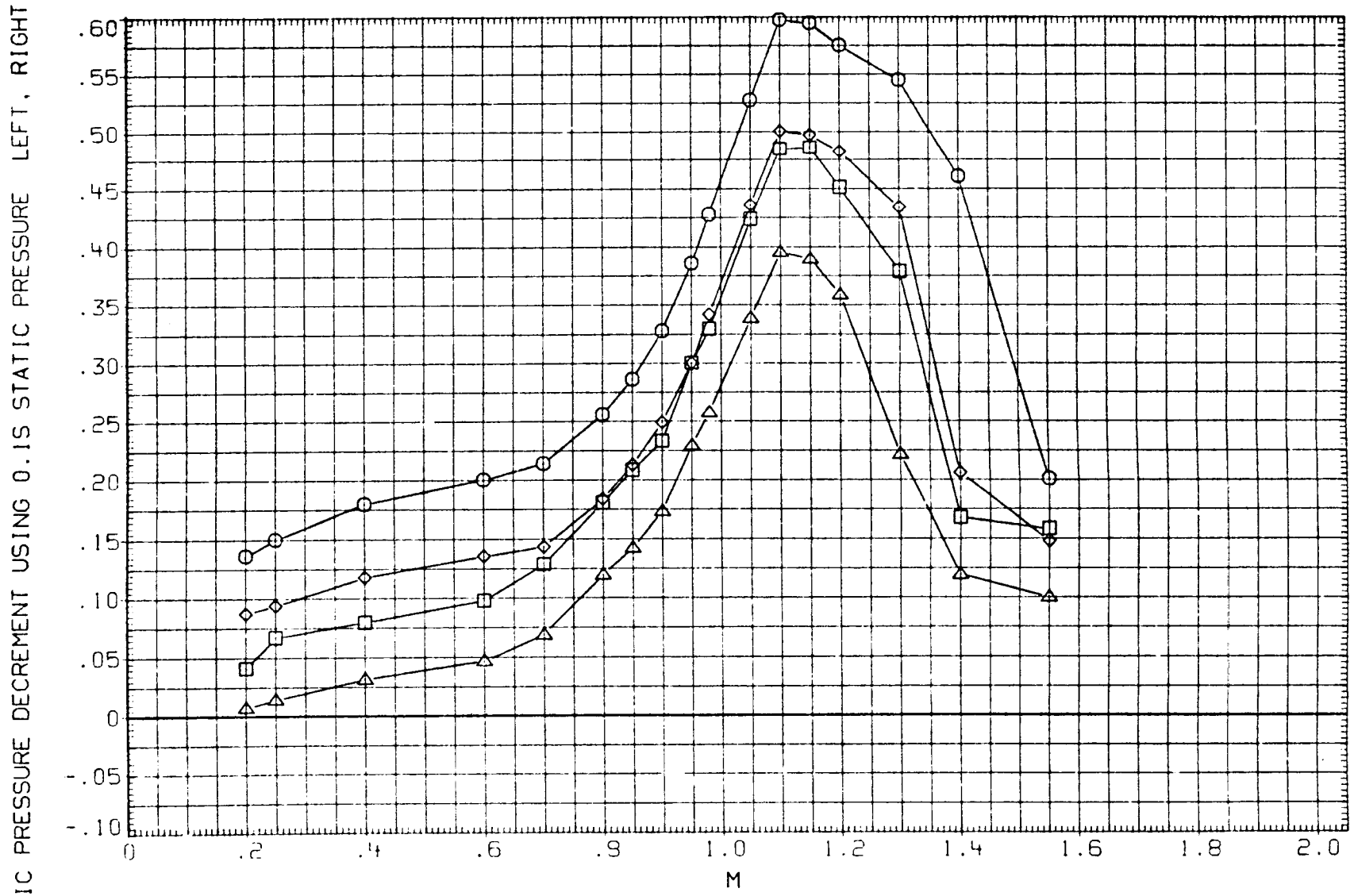


FIG. 58 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS MACH NUMBER
LEFT AND RIGHT SIDES COMPARED

(A) ALPHA = .00 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION			BETA	PHI
RVR005	○	0A232	RFN.1S AND	RA.2P/S SIDE PROBES COMBINED	2.000	.000
LVR004	□	0A232	LFN.1S AND	LA.2P/S SIDE PROBES COMBINED	.000	.000
RVR004	◇	0A232	RFN.1S AND	RA.2P/S SIDE PROBES COMBINED	.000	.000
LVR006	△	0A232	LFN.1S AND	LA.2P/S SIDE PROBES COMBINED	2.000	.000

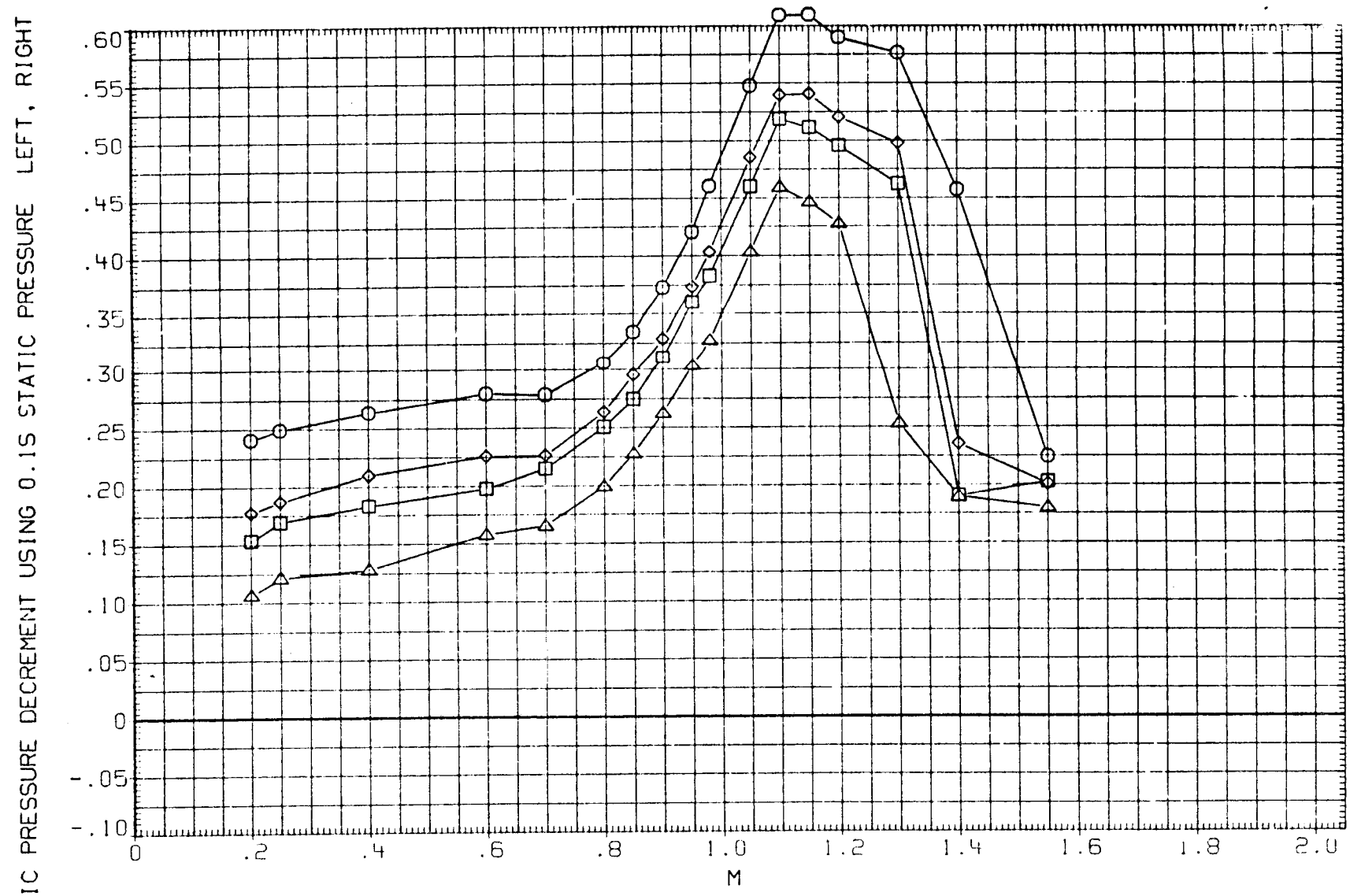


FIG. 58 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS MACH NUMBER
LEFT AND RIGHT SIDES COMPARED

(B) ALPHA = 4.00 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION			BETA	PHI
RVP[illegible]5	○	0A232	RFN.1S AND	RA.2P/S SIDE PROBES COMBINED	2.000	.000
LVP[illegible]4	□	0A232	LFN.1S AND	LA.2P/S SIDE PROBES COMBINED	.000	.000
RVP[illegible]4	◇	0A232	RFN.1S AND	RA.2P/S SIDE PROBES COMBINED	.000	.000
LVP[illegible]6	△	0A232	LFN.1S AND	LA.2P/S SIDE PROBES COMBINED	2.000	.000

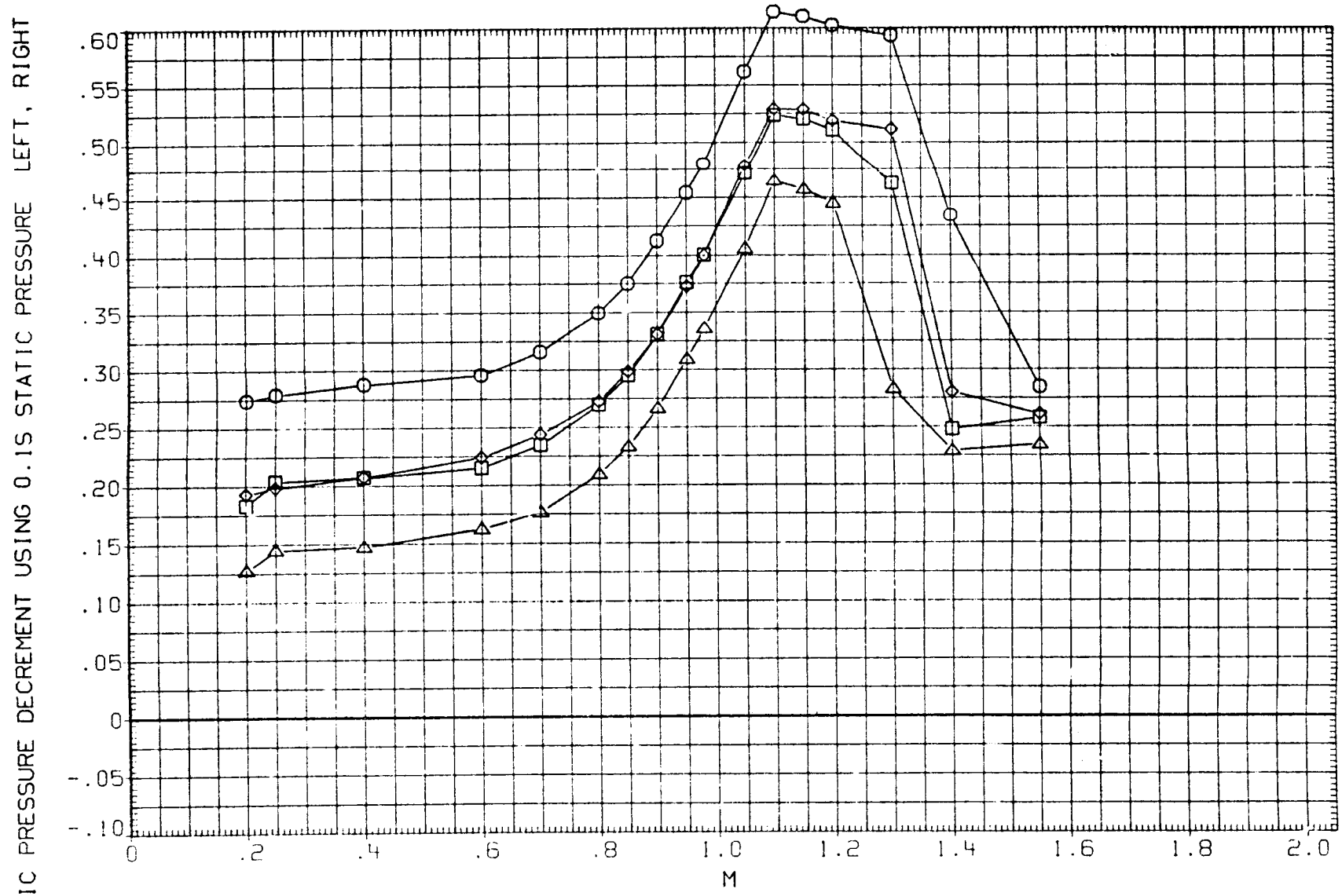


FIG. 58 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS MACH NUMBER
LEFT AND RIGHT SIDES COMPARED

(C) ALPHA = 8.00 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION			BETA	PHI
RVR[illegible]5	○	0A232	RFN.1S AND	RA.2P/S SIDE PROBES COMBINED	2.000	.000
LVR[illegible]4	□	0A232	LFN.1S AND	LA.2P/S SIDE PROBES COMBINED	.000	.000
RVR[illegible]4	◇	0A232	RFN.1S AND	RA.2P/S SIDE PROBES COMBINED	.000	.000
LVR[illegible]6	△	0A232	LFN.1S AND	LA.2P/S SIDE PROBES COMBINED	2.000	.000

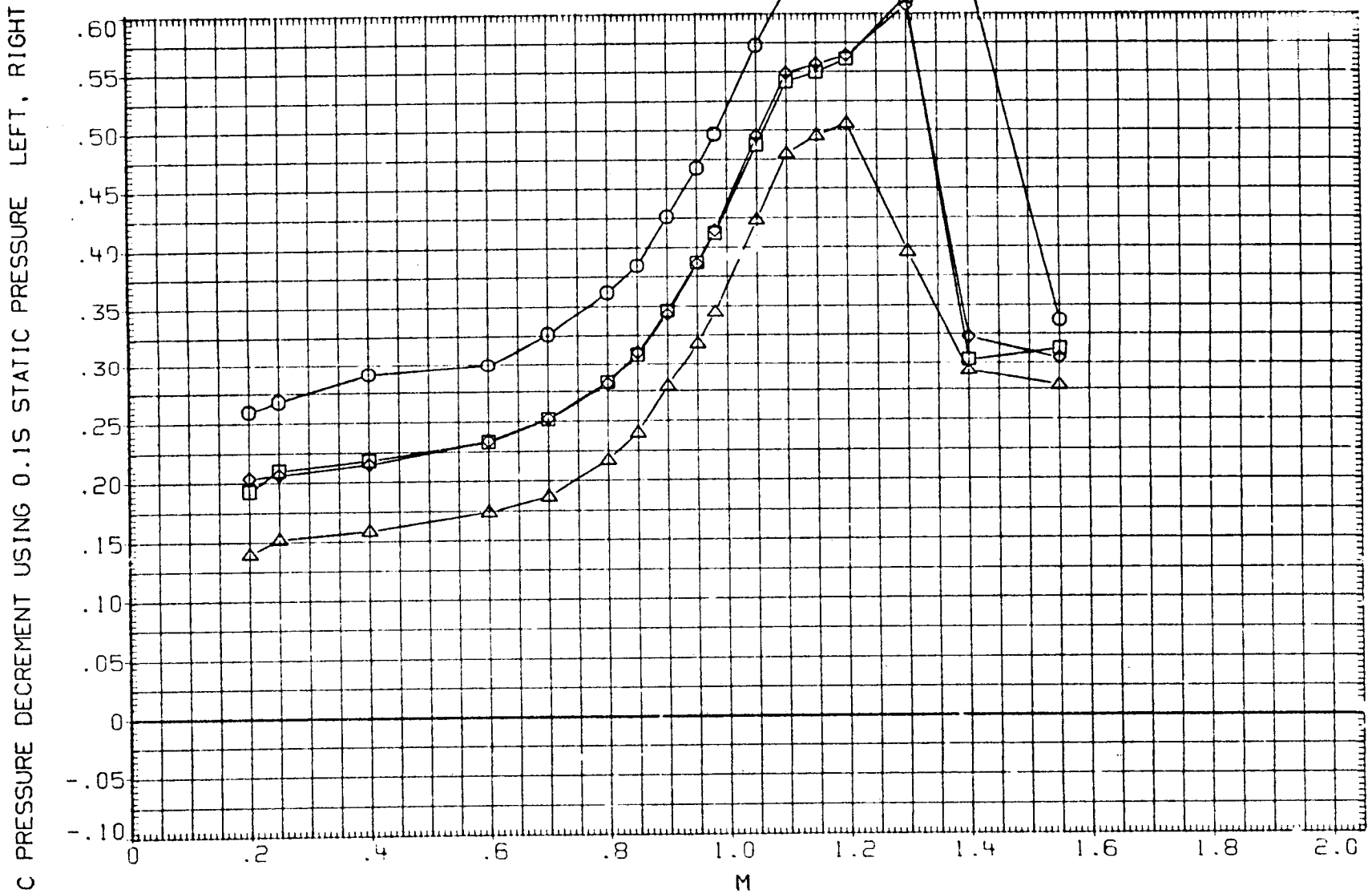


FIG. 58 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS MACH NUMBER
LEFT AND RIGHT SIDES COMPARED

(S ALPHA = 12.00 DATE 10 AUG [illegible]S

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
RVR[illegible]5	○	0A232	RFN.1S AND	RA.2P/S SIDE PROBES COMBINED		2.000	.000
LVR[illegible]4	□	0A232	LFN.1S AND	LA.2P/S SIDE PROBES COMBINED		.000	.000
RVR[illegible]6	◇	0A232	RFN.1S AND	RA.2P/S SIDE PROBES COMBINED		.000	.000
LVR[illegible]6	△	0A232	LFN.1S AND	LA.2P/S SIDE PROBES COMBINED		2.000	.000

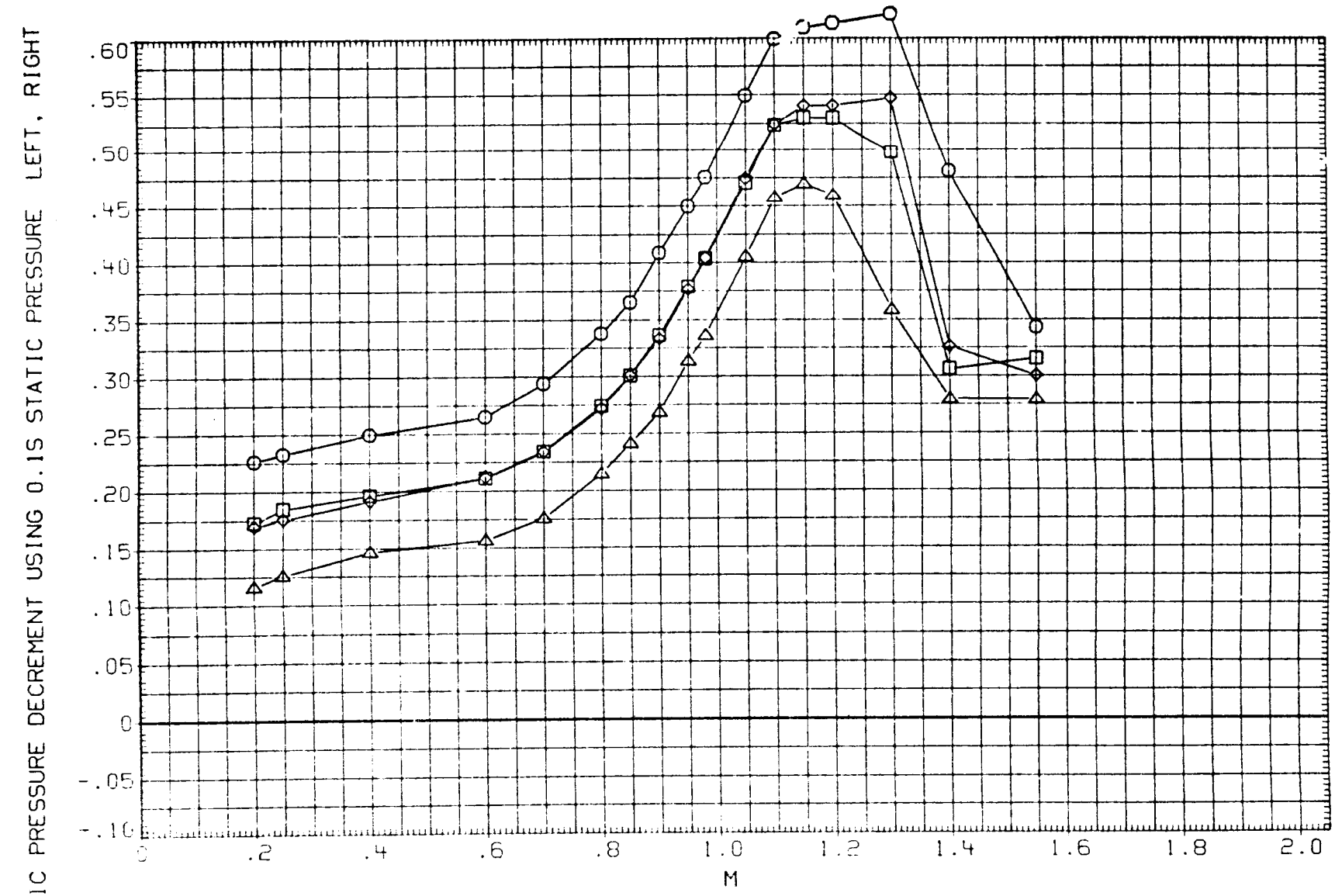


FIG. 58 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS MACH NUMBER
LEFT AND RIGHT SIDES COMPARED

(C) ALPHA = 16.00 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
RVP[illegible]5	○	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	2.000	.000
LVP[illegible]4	□	0A232 LFN.1S AND LA.2P/S SIDE PROBES COMBINED	.000	.000
RVP[illegible]4	◇	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	.000	.000
LVP[illegible]6	△	0A232 LFN.1S AND LA.2P/S SIDE PROBES COMBINED	2.000	.000

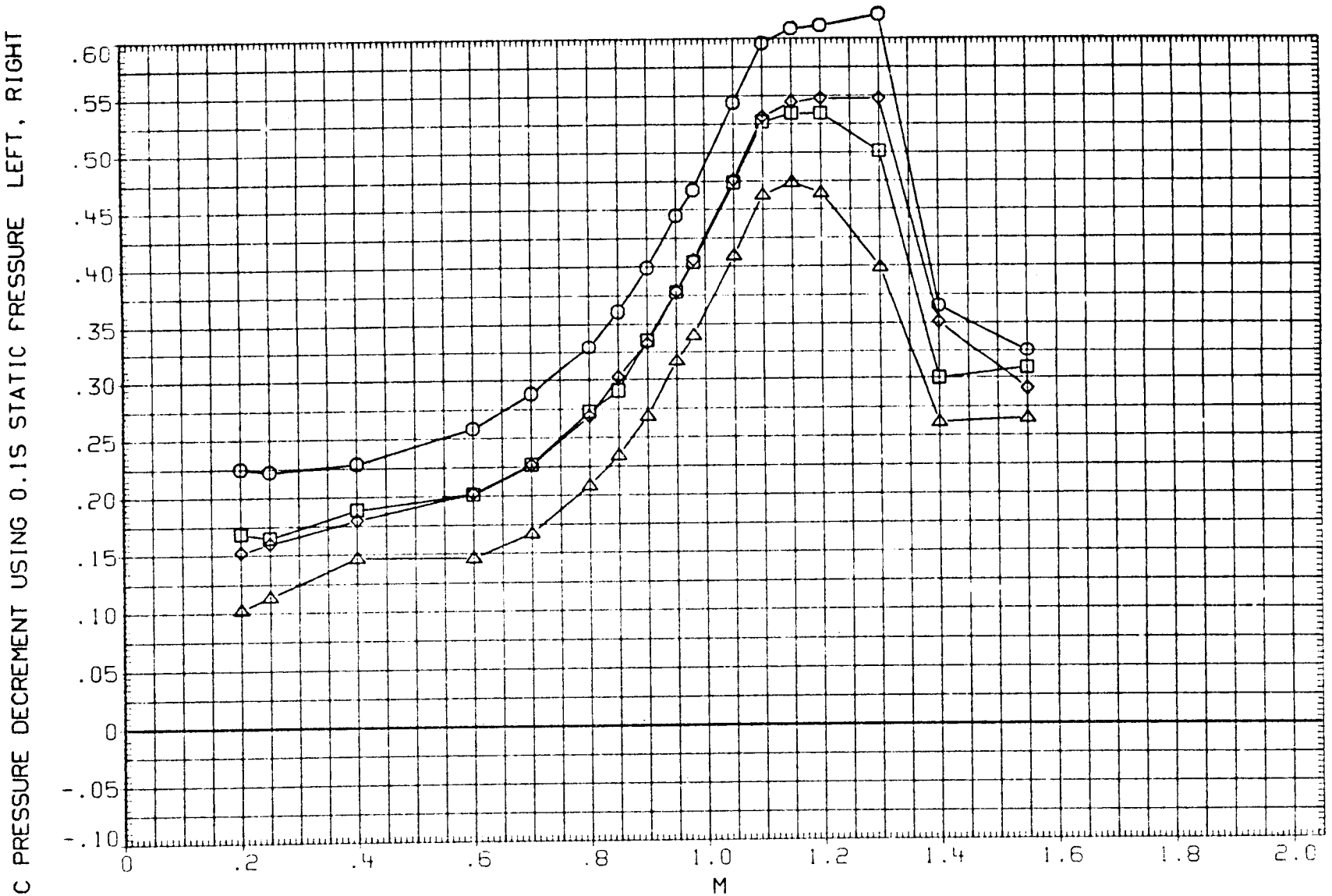


FIG. 58 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS MACH NUMBER
LEFT AND RIGHT SIDES COMPARED

(F) ALPHA = 18.00

DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA04	○	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA06	□	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

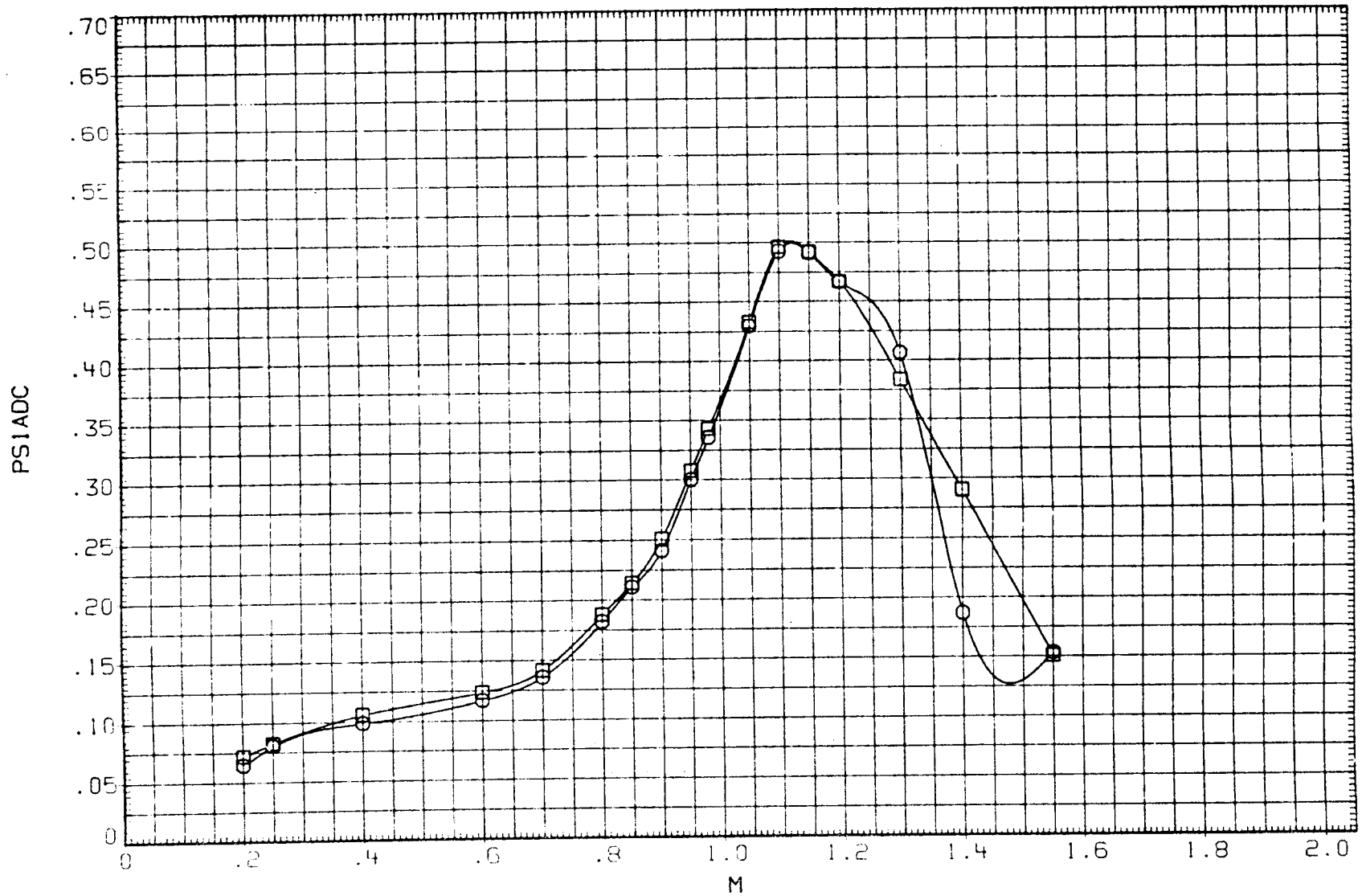


FIG. 59 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS MACH NUMBER
AVERAGED (L + R) / 2

(A) ALPHA = .00

DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA04	○	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA06	□	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

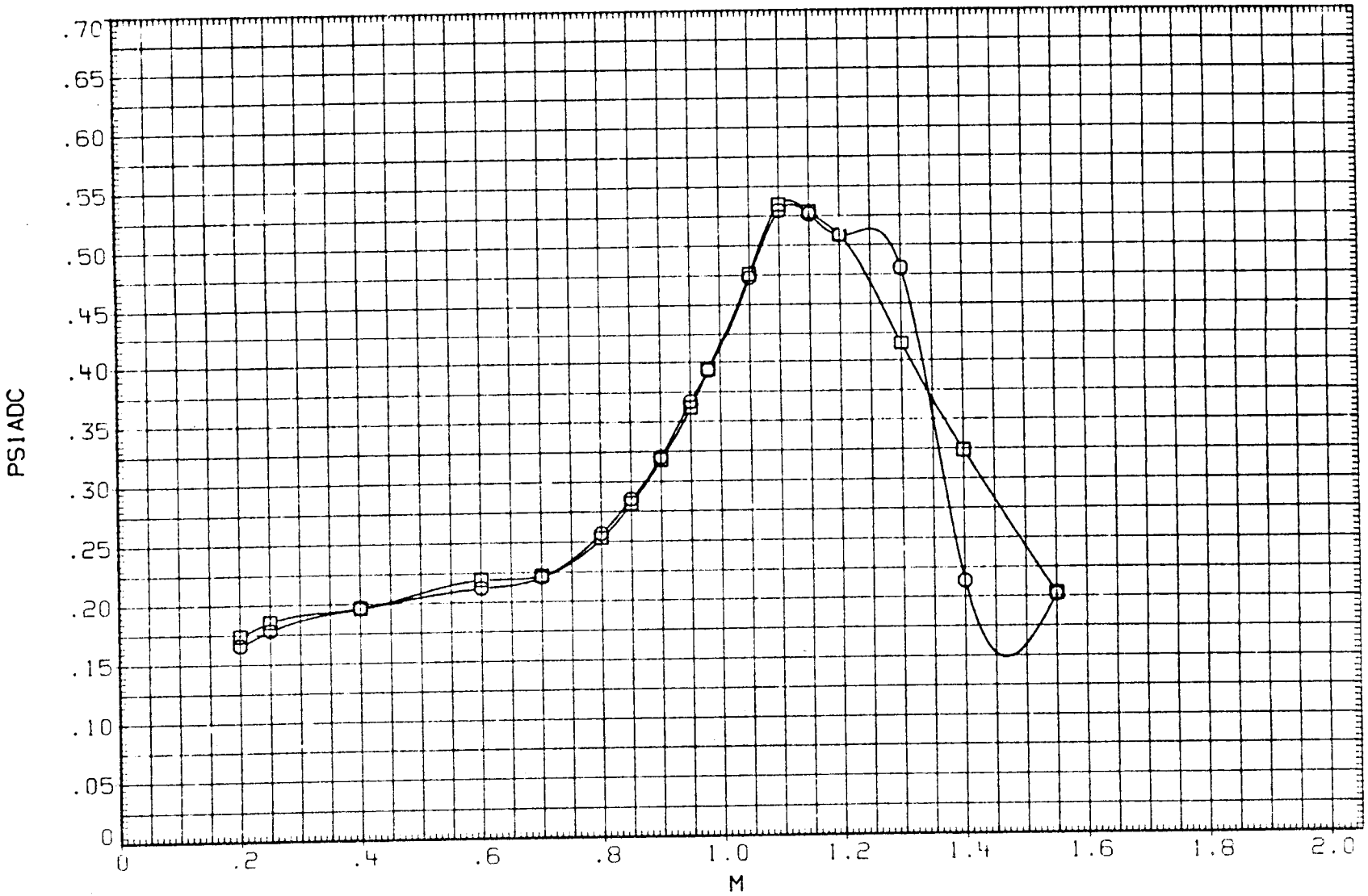


FIG. 59 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS MACH NUMBER
AVERAGED (L + R) / 2

(B)ALPHA = 4.00

DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA04	○	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA06	□	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

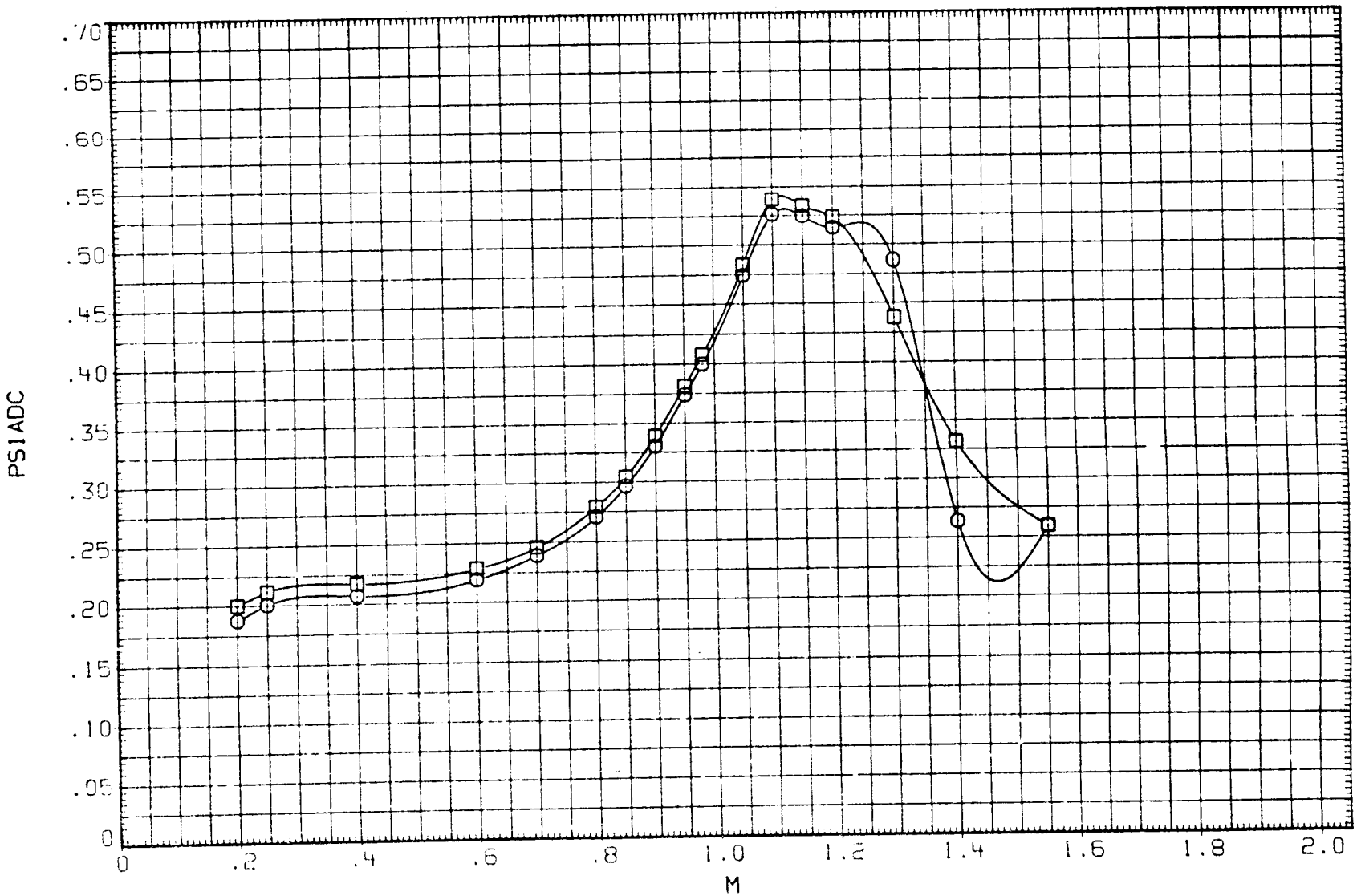


FIG. 59 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS MACH NUMBER
AVERAGED (L + R) / 2

(C)ALPHA = 8.00 DATE 10 AUG 79

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA04	○	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA06	□	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

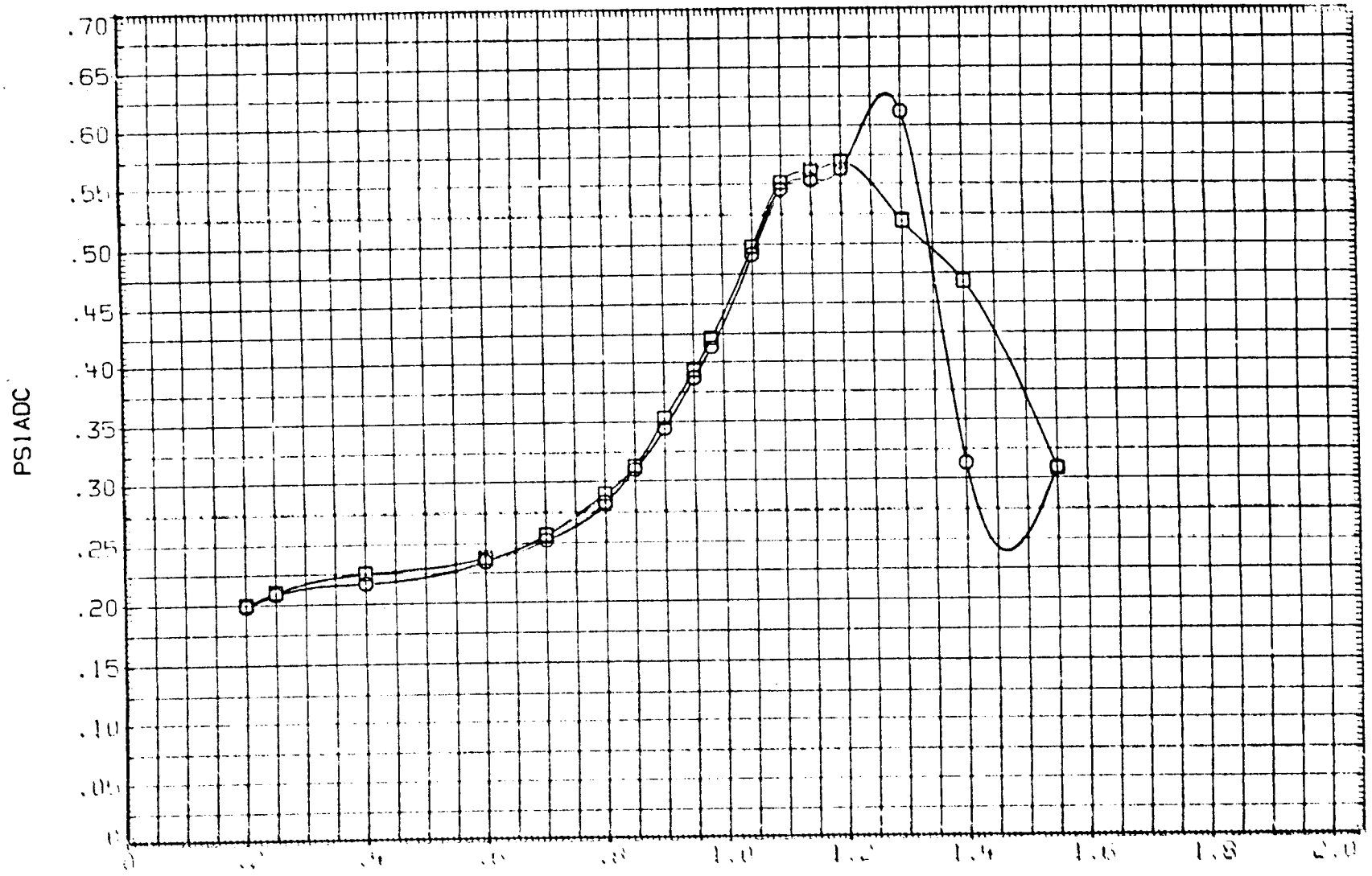


FIG. 59 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS MACH NUMBER
AVERAGED (L + R) / 2

(D)ALPHA = 12.00

DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA04	○	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA06	□	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

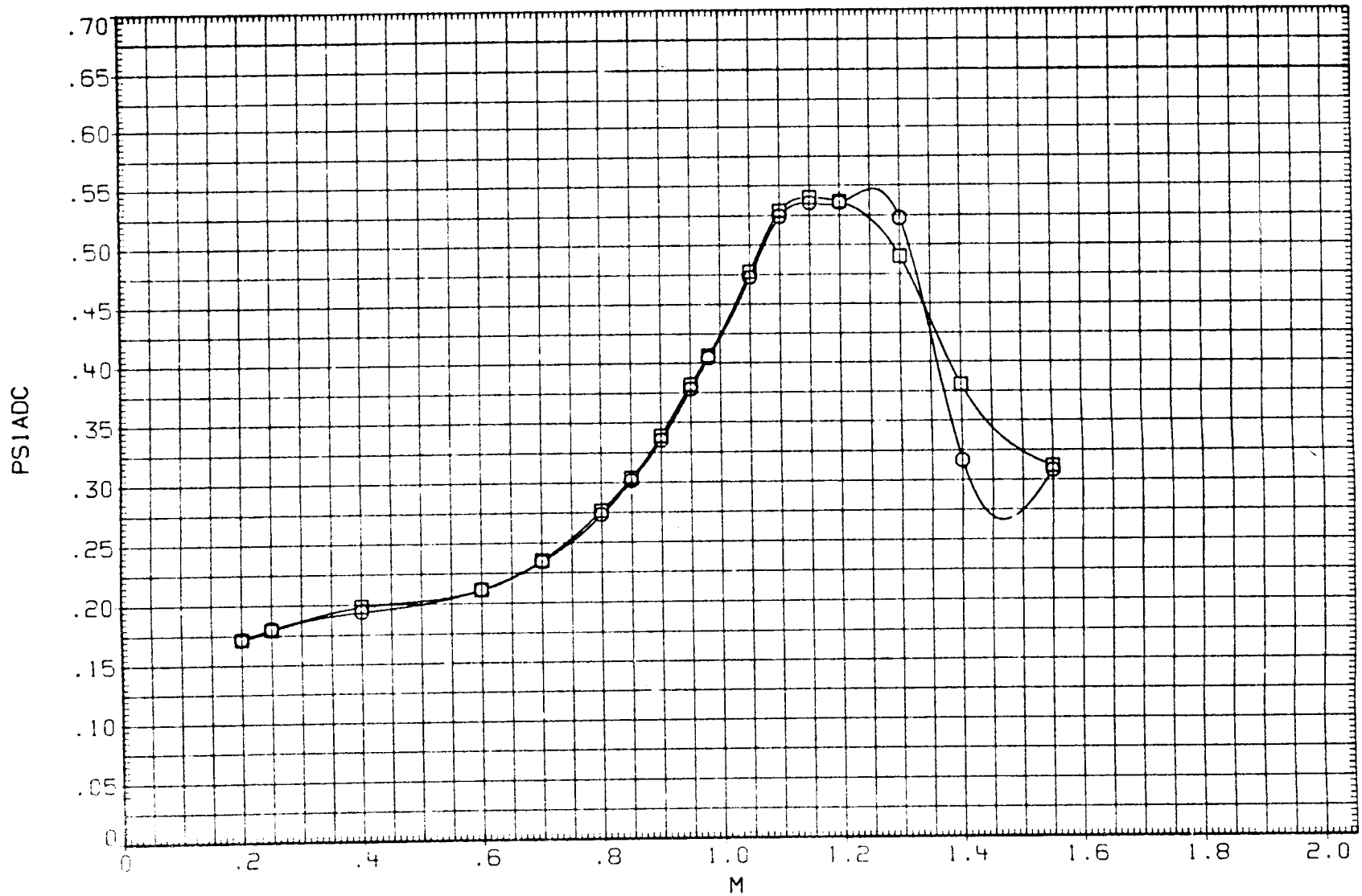


FIG. 59 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS MACH NUMBER
AVERAGED (L + R) / 2

(E)ALPHA = 16.00

DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA04	○	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA06	□	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

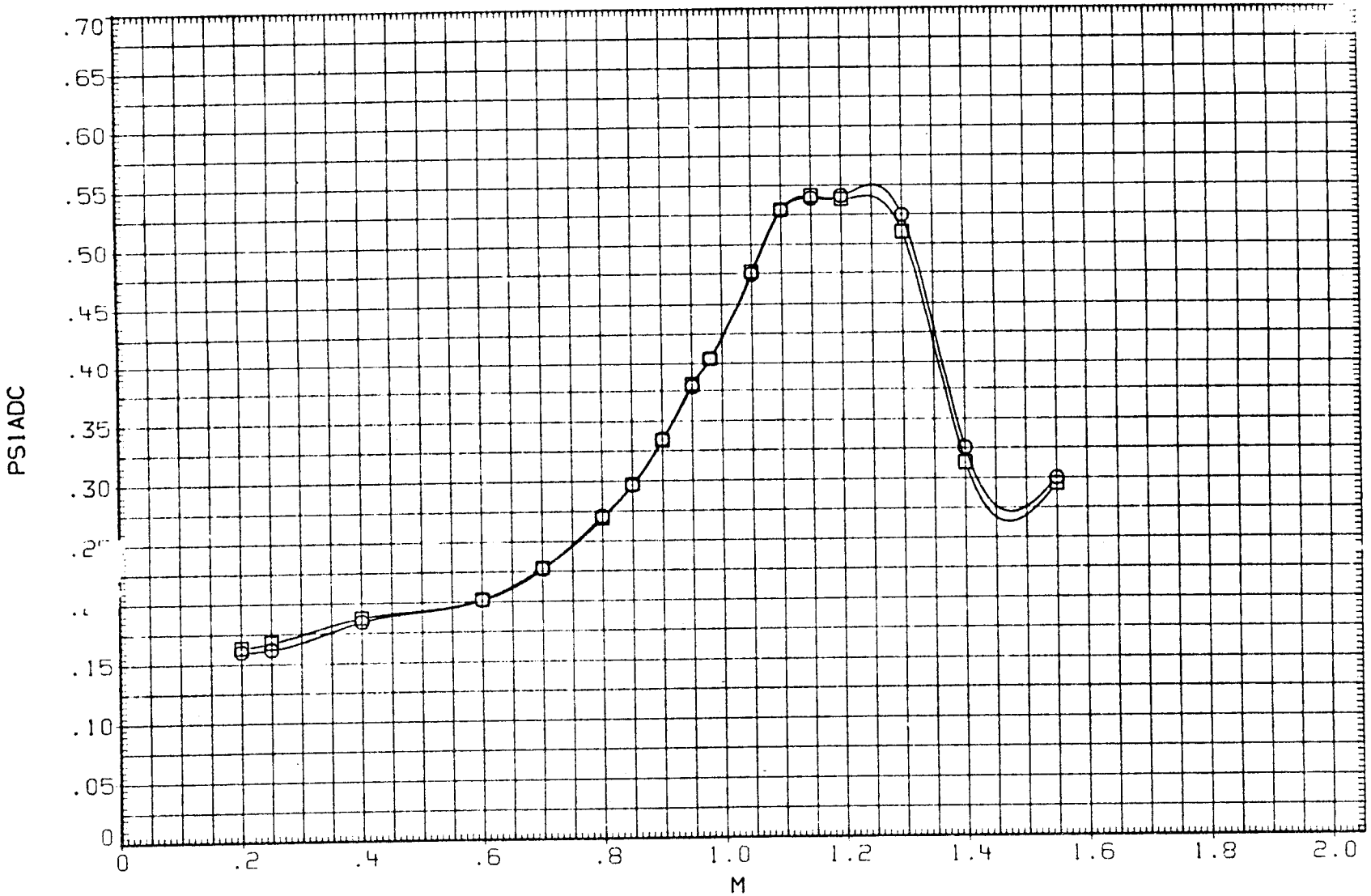


FIG. 59 STATIC PRESSURE DECREMENT-USING 0.1S STATIC VERSUS MACH NUMBER
AVERAGED (L + R) / 2

(F)ALPHA = 18.00

DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
LVRU04	○	0A232 LFN.1S AND LA.2P/S SIDE PROBES COMBINED	.000	.000
LVRU06	□	0A232 LFN.1S AND LA.2P/S SIDE PROBES COMBINED	2.000	.000

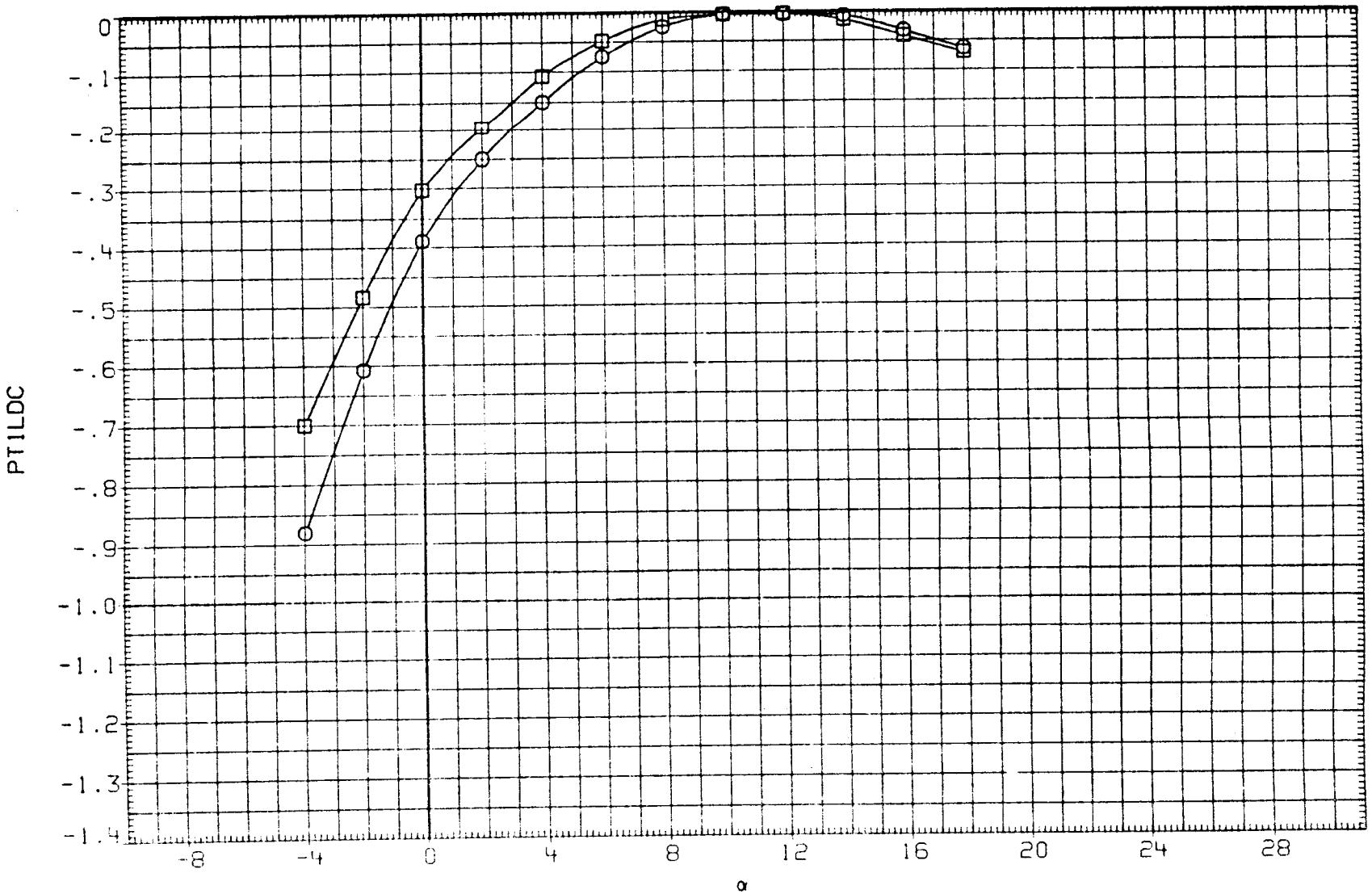


FIG. 60 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
LEFT SIDE

(A)MACH = .20 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
LVRU04	○	0A232 LFN.IS AND LA.2P/S SIDE PROBES COMBINED	.000	.000
LVRU06	□	0A232 LFN.IS AND LA.2P/S SIDE PROBES COMBINED	2.000	.000

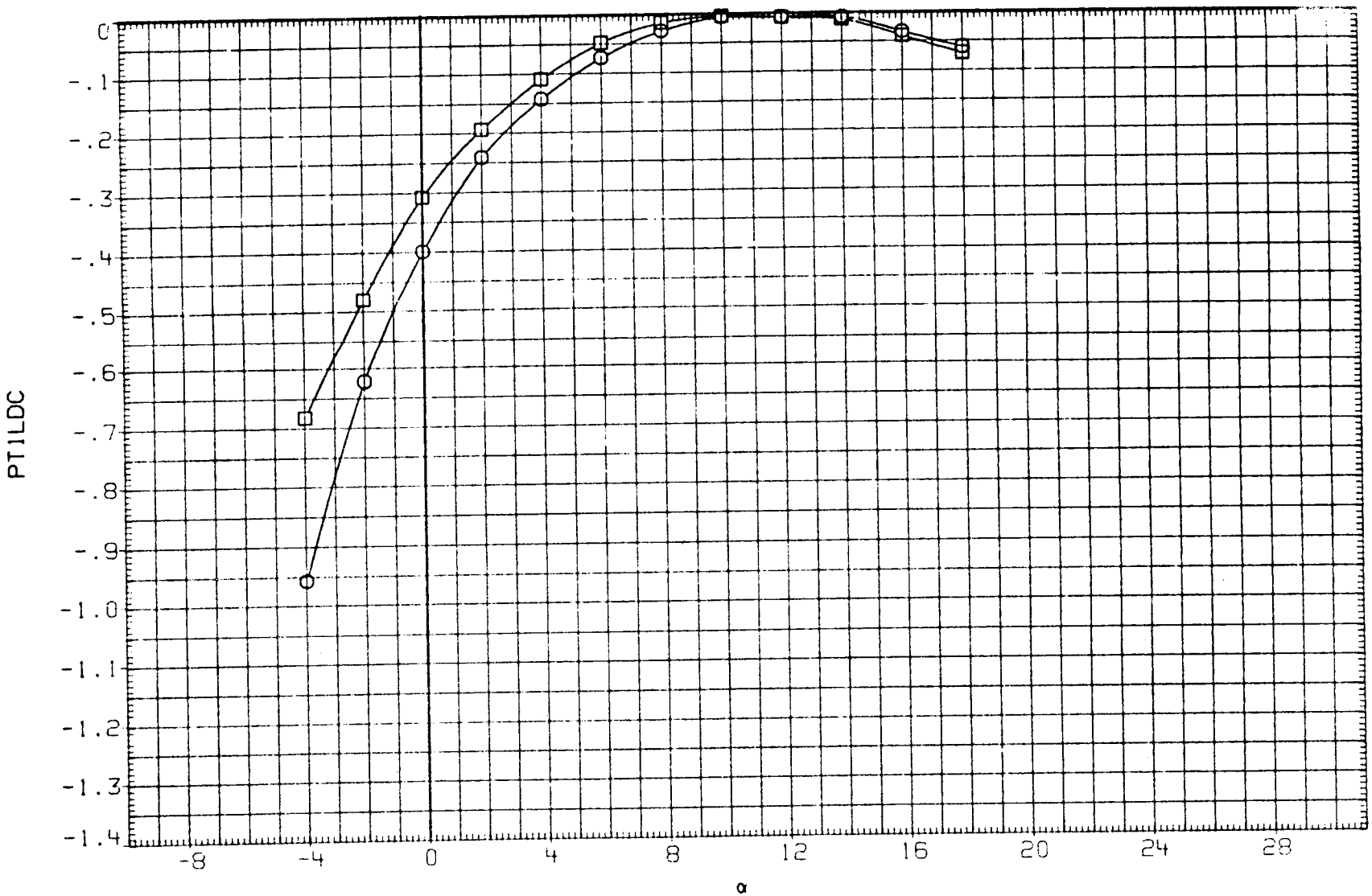


FIG. 60 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
LEFT SIDE

(B)MACH = .25 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
LVRU04	○	0A232 LFN.1S AND LA.2P/S SIDE PROBES COMBINED	.000	.000
LVRU06	□	0A232 LFN.1S AND LA.2P/S SIDE PROBES COMBINED	2.000	.000

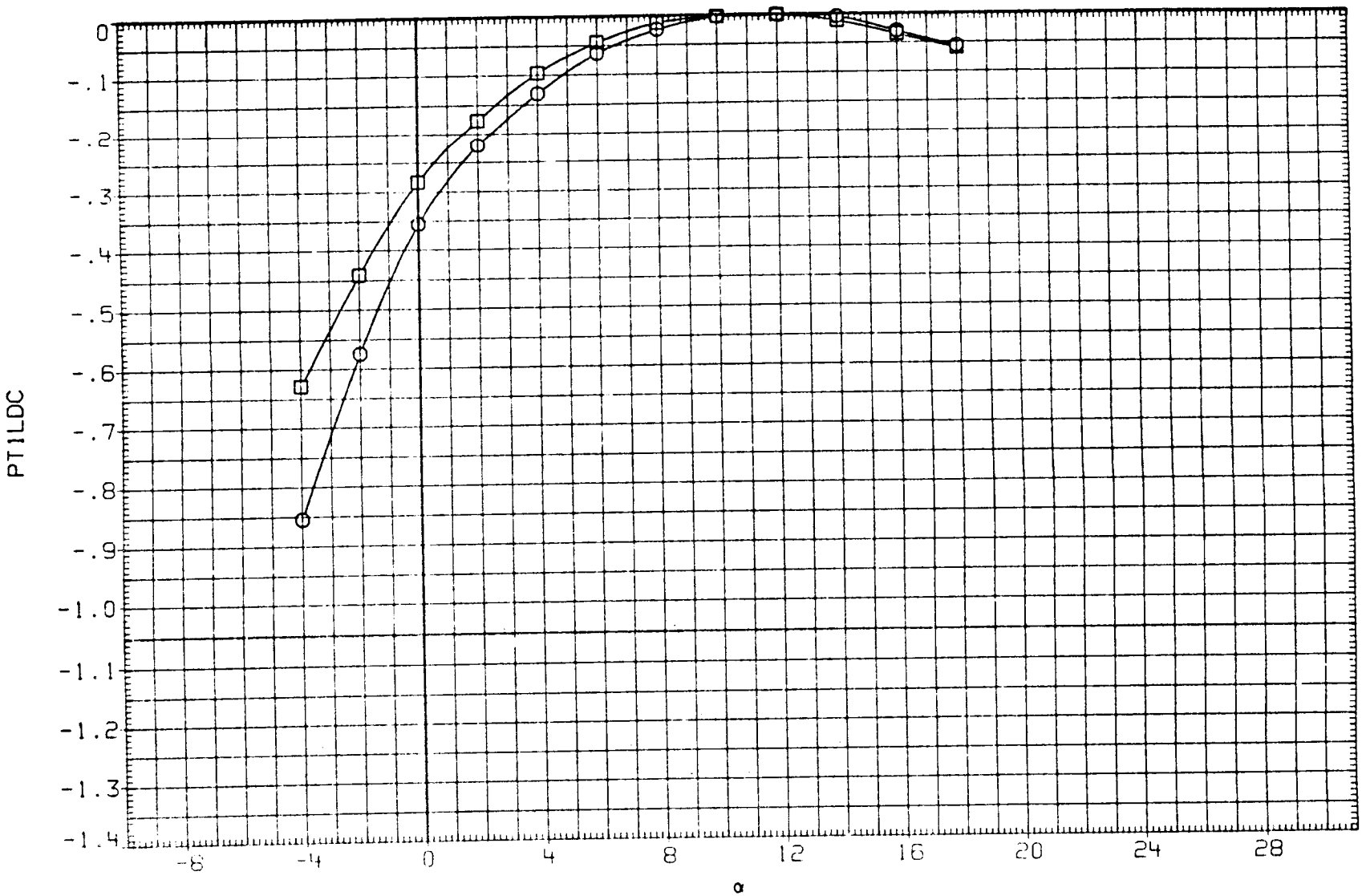


FIG. 60 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
LEFT SIDE

(C)MACH = .40 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
LVRU04	○	0A232 LFN.1S AND LA.2P/S SIDE PROBES COMBINED	.000	.000
LVRU06	□	0A232 LFN.1S AND LA.2P/S SIDE PROBES COMBINED	2.000	.000

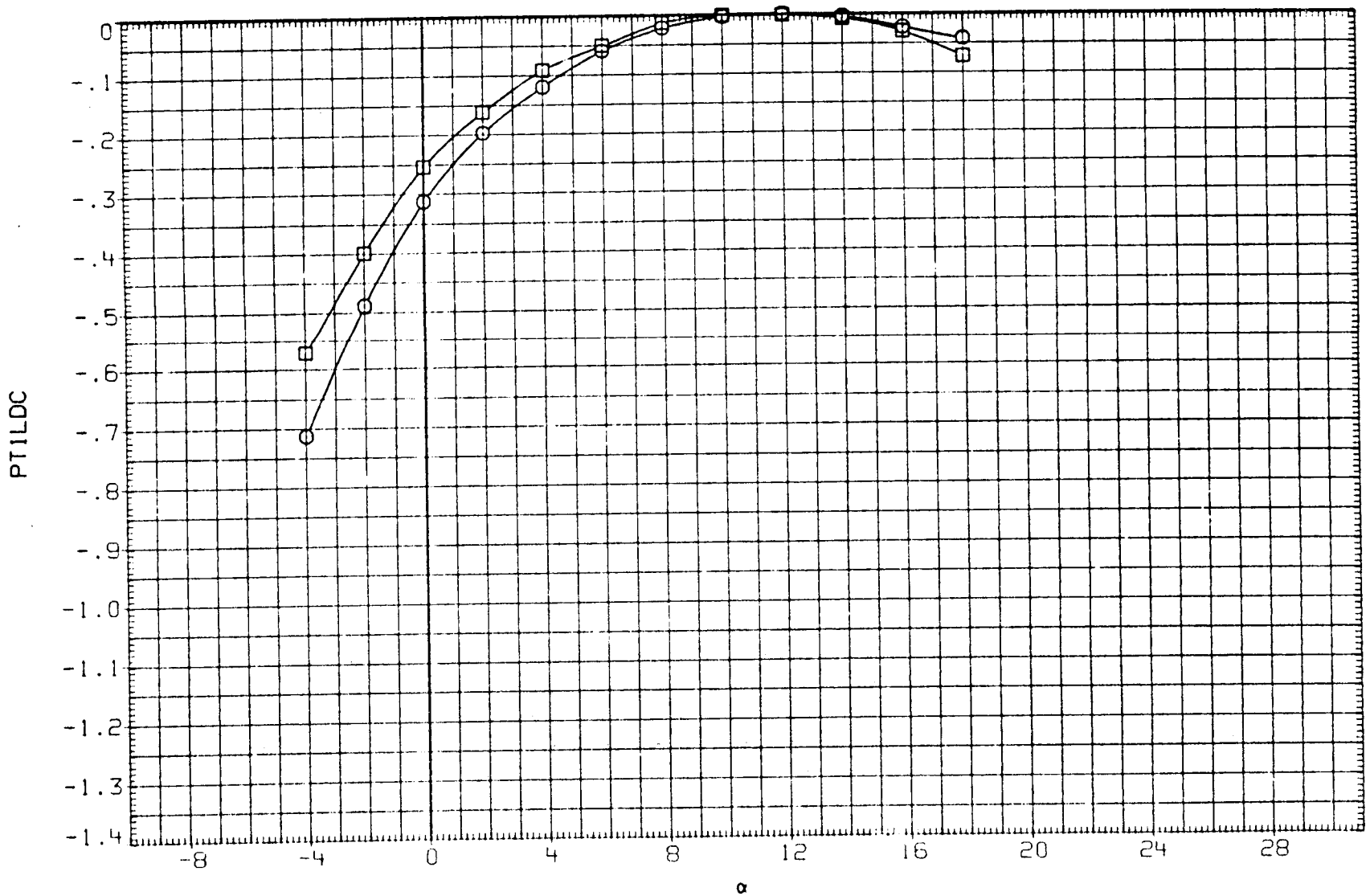


FIG. 60 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
LEFT SIDE

(D)MACH = .60 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
LVRU04	○	0A232 LFN.1S AND LA.2P/S SIDE PROBES COMBINED	.000	.000
LVRU06	□	0A232 LFN.1S AND LA.2P/S SIDE PROBES COMBINED	2.000	.000

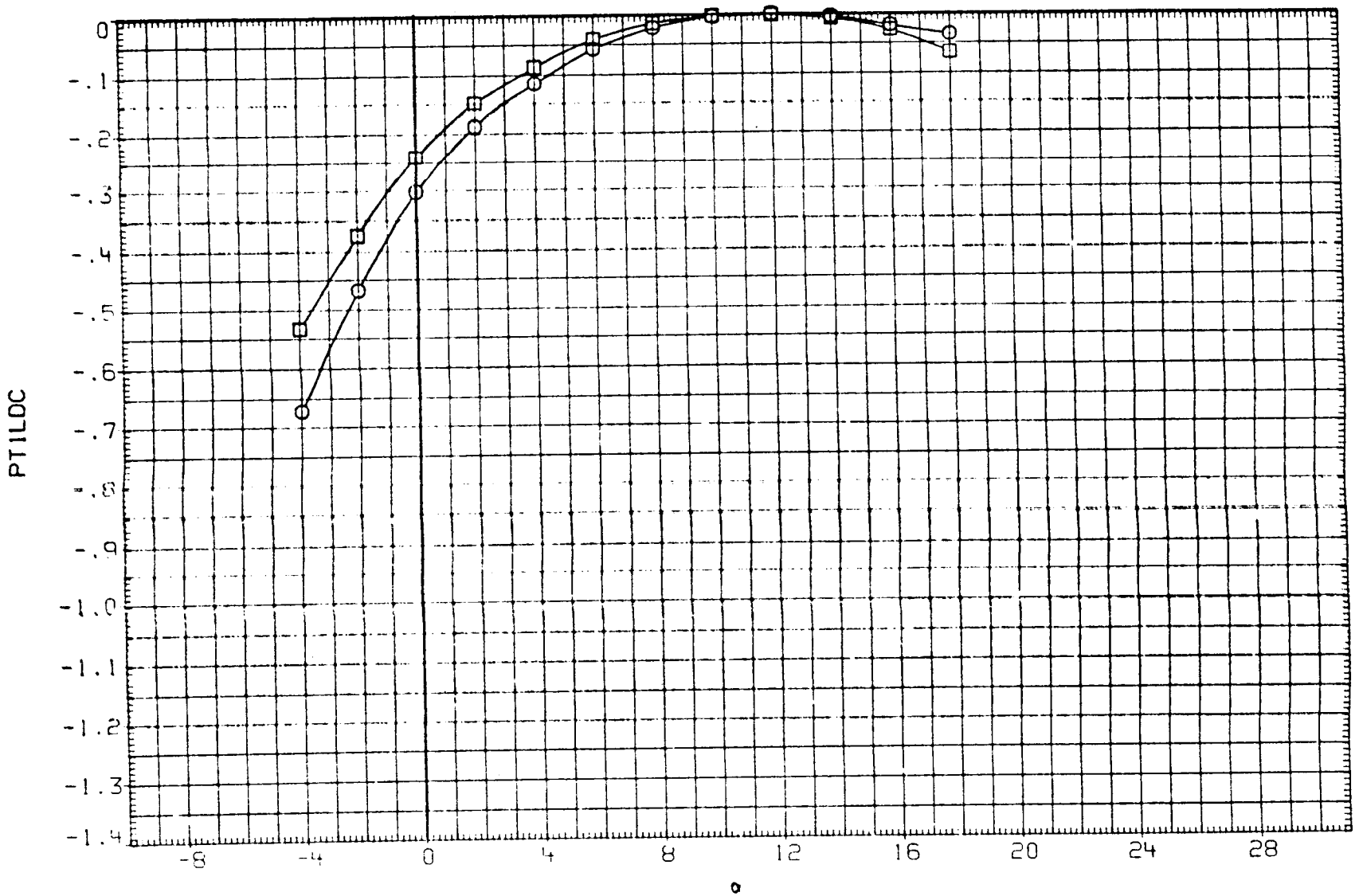


FIG. 60 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
LEFT SIDE

(E)MACH = .70 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
LVRU04	○	0A232 LFN.1S AND LA.2P/S SIDE PROBES COMBINED	.000	.000
LVRU06	□	0A232 LFN.1S AND LA.2P/S SIDE PROBES COMBINED	2.000	.000

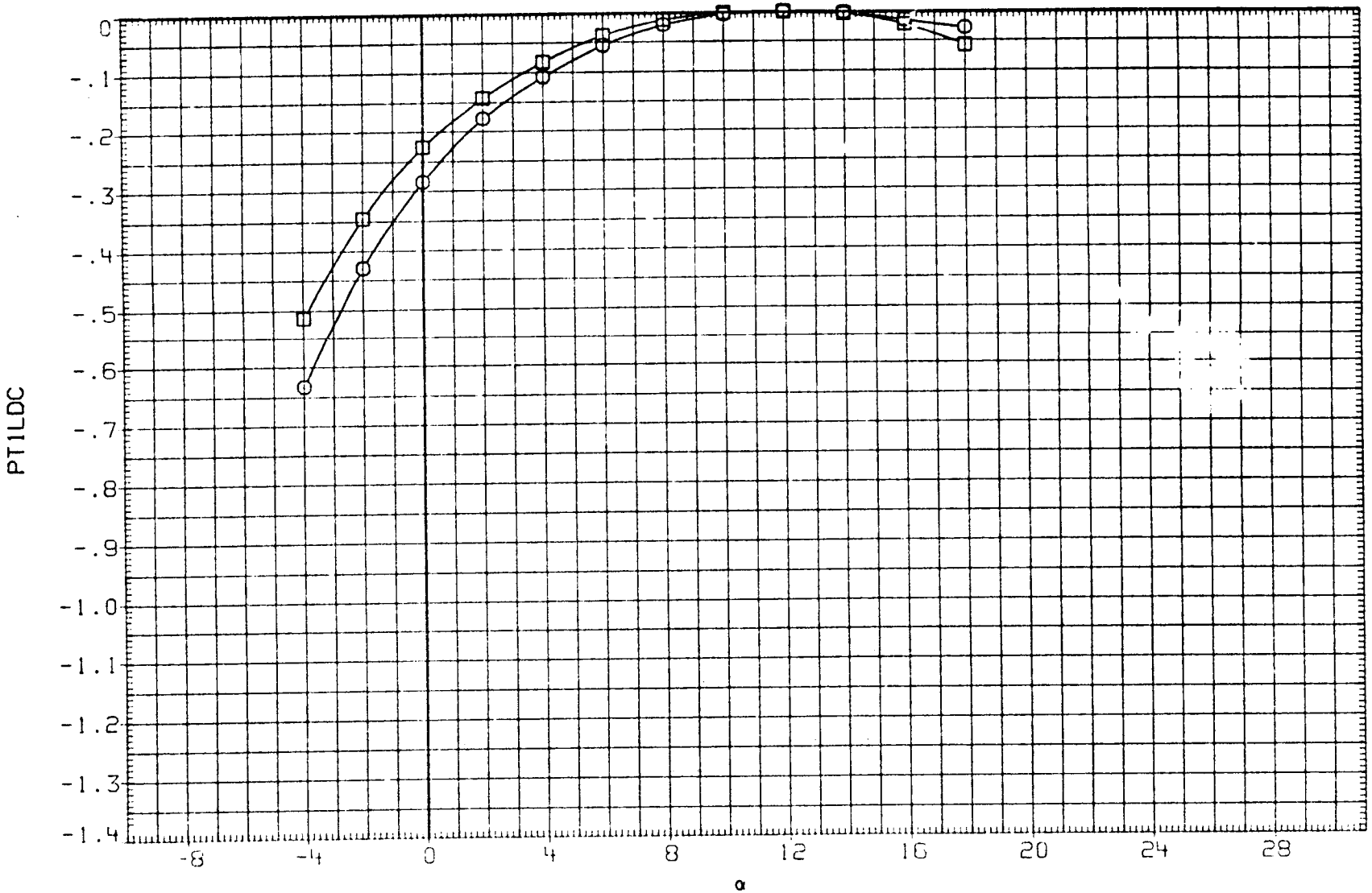


FIG. 60 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
LEFT SIDE

(F)MACH = .80 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
LVRU04	○	0A232 LFN.1S AND LA.2P/S SIDE PROBES COMBINED	.000	.000
LVRU06	□	0A232 LFN.1S AND LA.2P/S SIDE PROBES COMBINED	2.000	.000

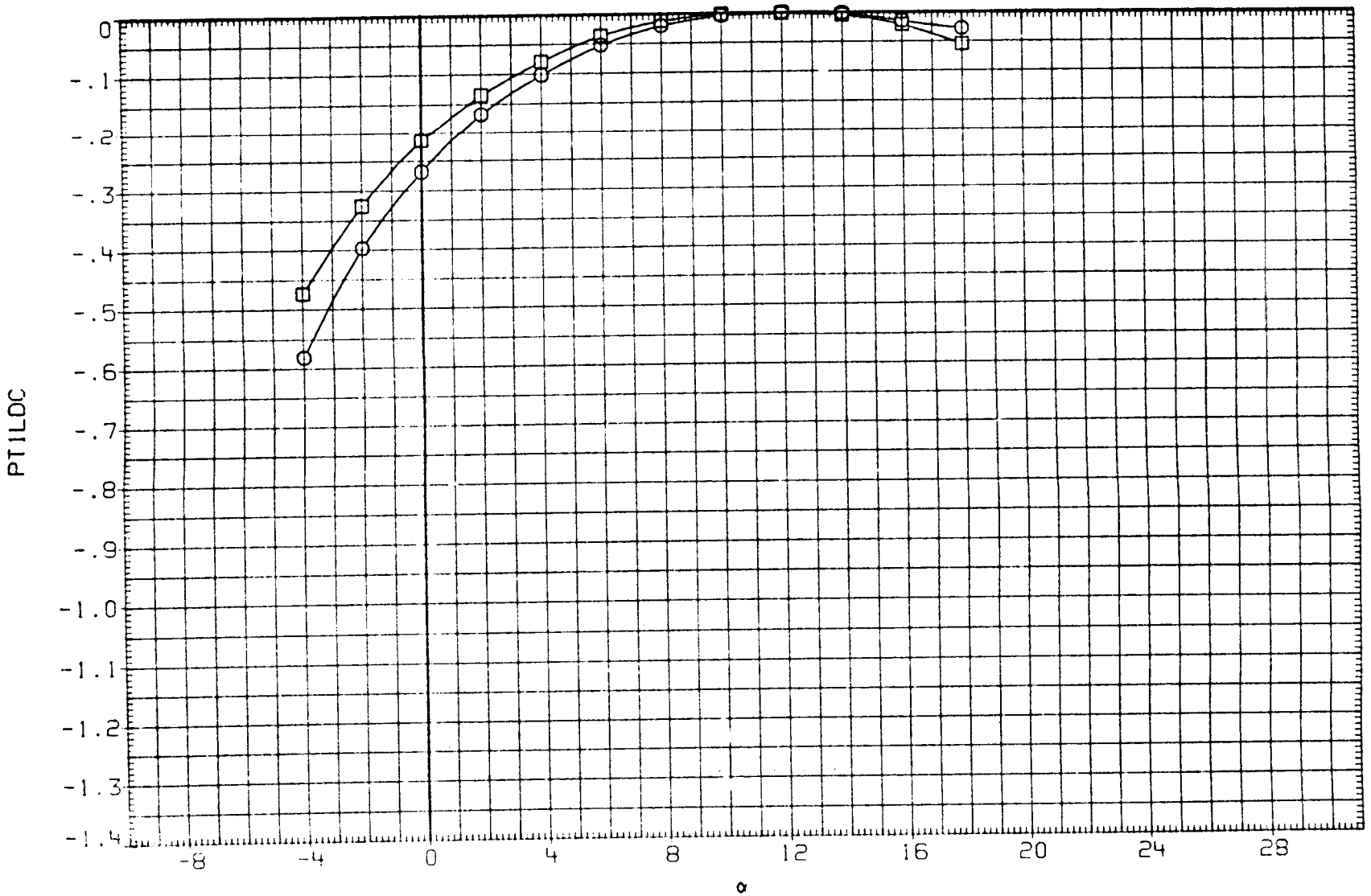


FIG. 60 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
LEFT SIDE

(G)MACH = .85 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
LVRU04	○	0A232 LFN.1S AND LA.2P/S SIDE PROBES COMBINED	.000	.000
LVRU06	□	0A232 LFN.1S AND LA.2P/S SIDE PROBES COMBINED	2.000	.000

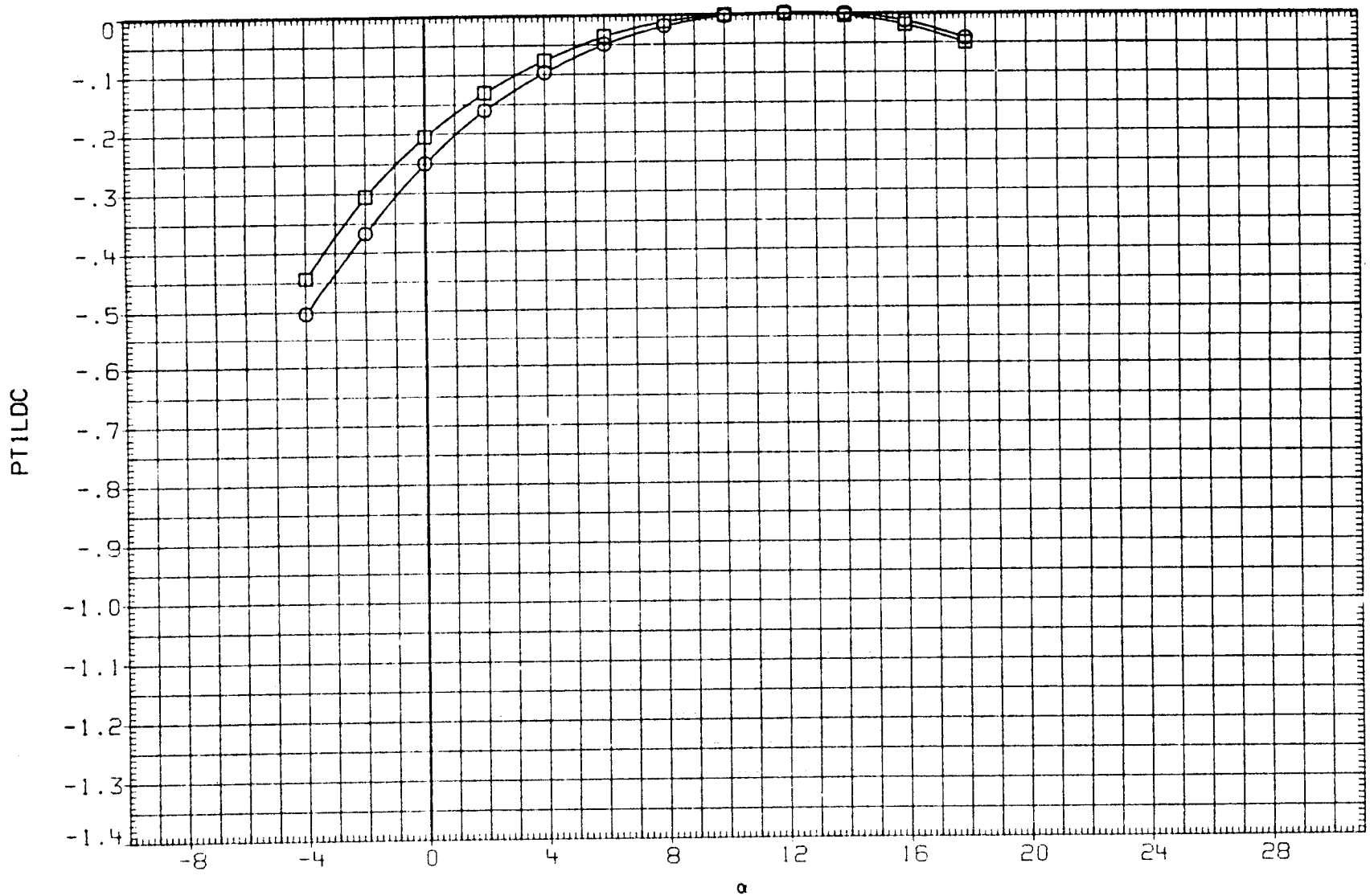


FIG. 60 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
LEFT SIDE

(H)MACH = .90 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
LVRU04	○	0A232 LFN.1S AND LA.2P/S SIDE PROBES COMBINED	.000	.000
LVRU06	□	0A232 LFN.1S AND LA.2P/S SIDE PROBES COMBINED	2.000	.000

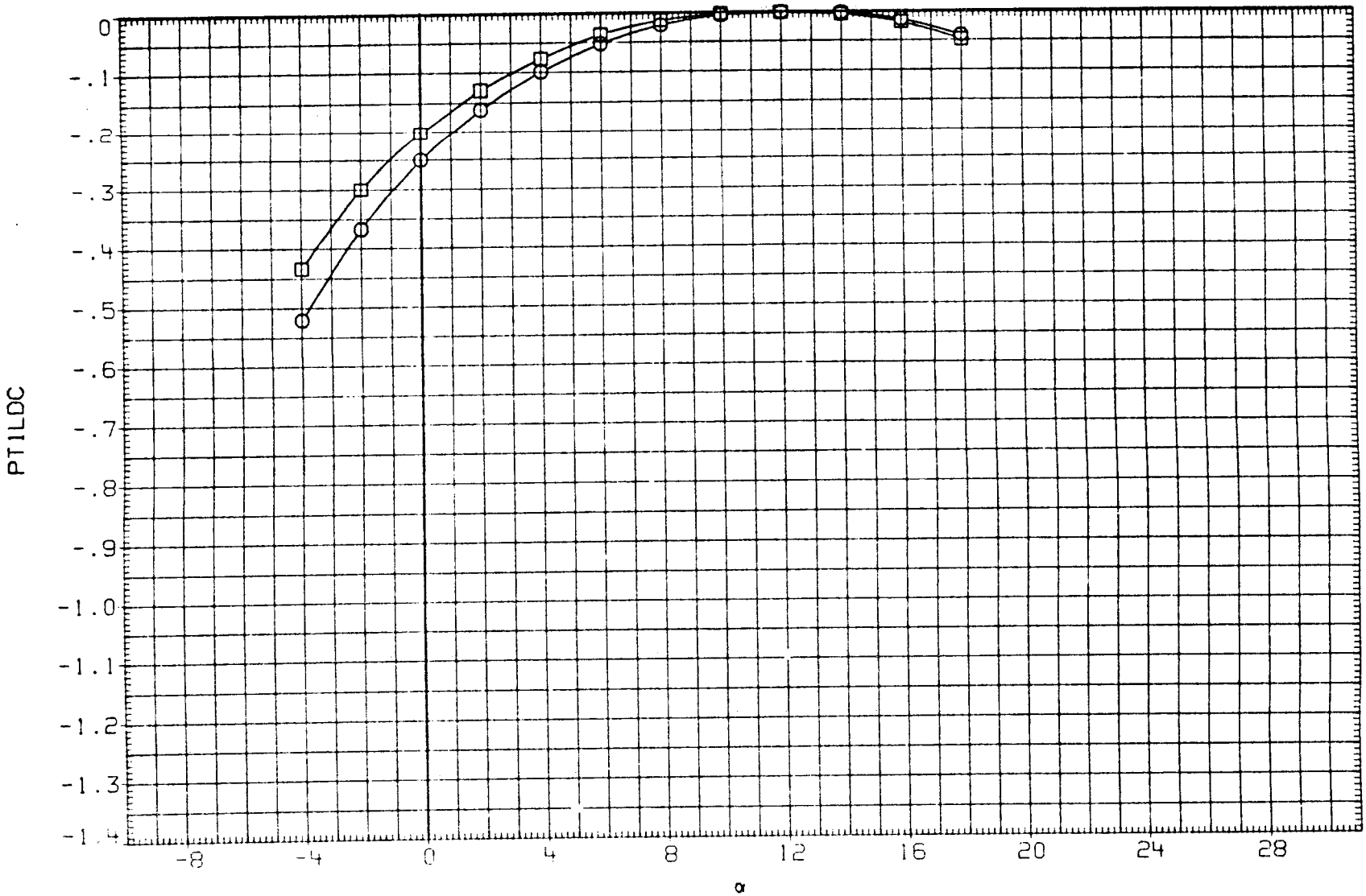


FIG. 60 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
LEFT SIDE

(I)MACH = .95 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
LVRU04	○	0A232 LFN.1S AND LA.2P/S SIDE PROBES COMBINED	.000	.000
LVRU06	□	0A232 LFN.1S AND LA.2P/S SIDE PROBES COMBINED	2.000	.000

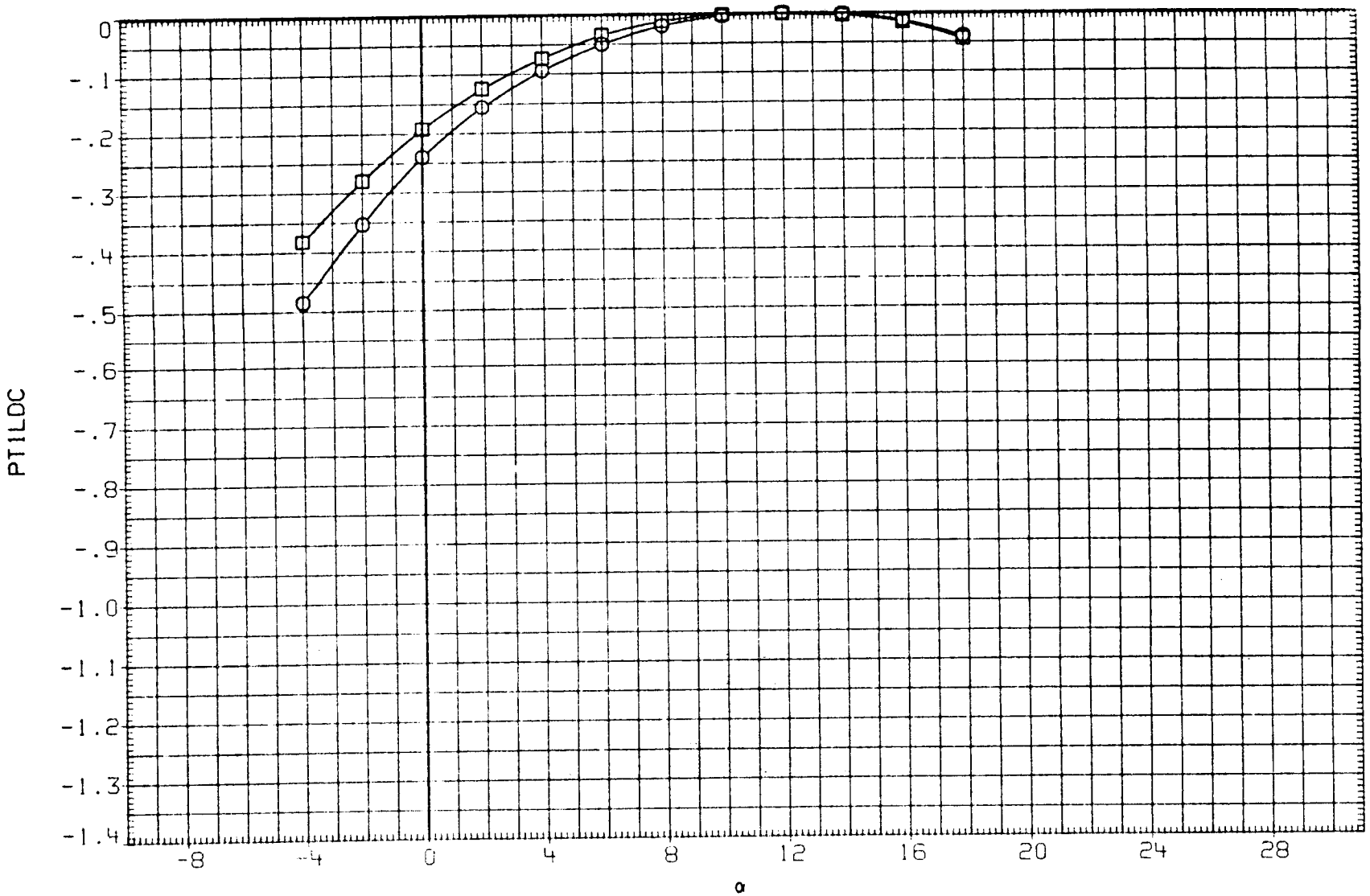


FIG. 60 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
LEFT SIDE

(J)MACH = .98 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
LVRU04	○	0A232 LFN.1S AND LA.2P/S SIDE PROBES COMBINED	.000	.000
LVRU06	□	0A232 LFN.1S AND LA.2P/S SIDE PROBES COMBINED	2.000	.000

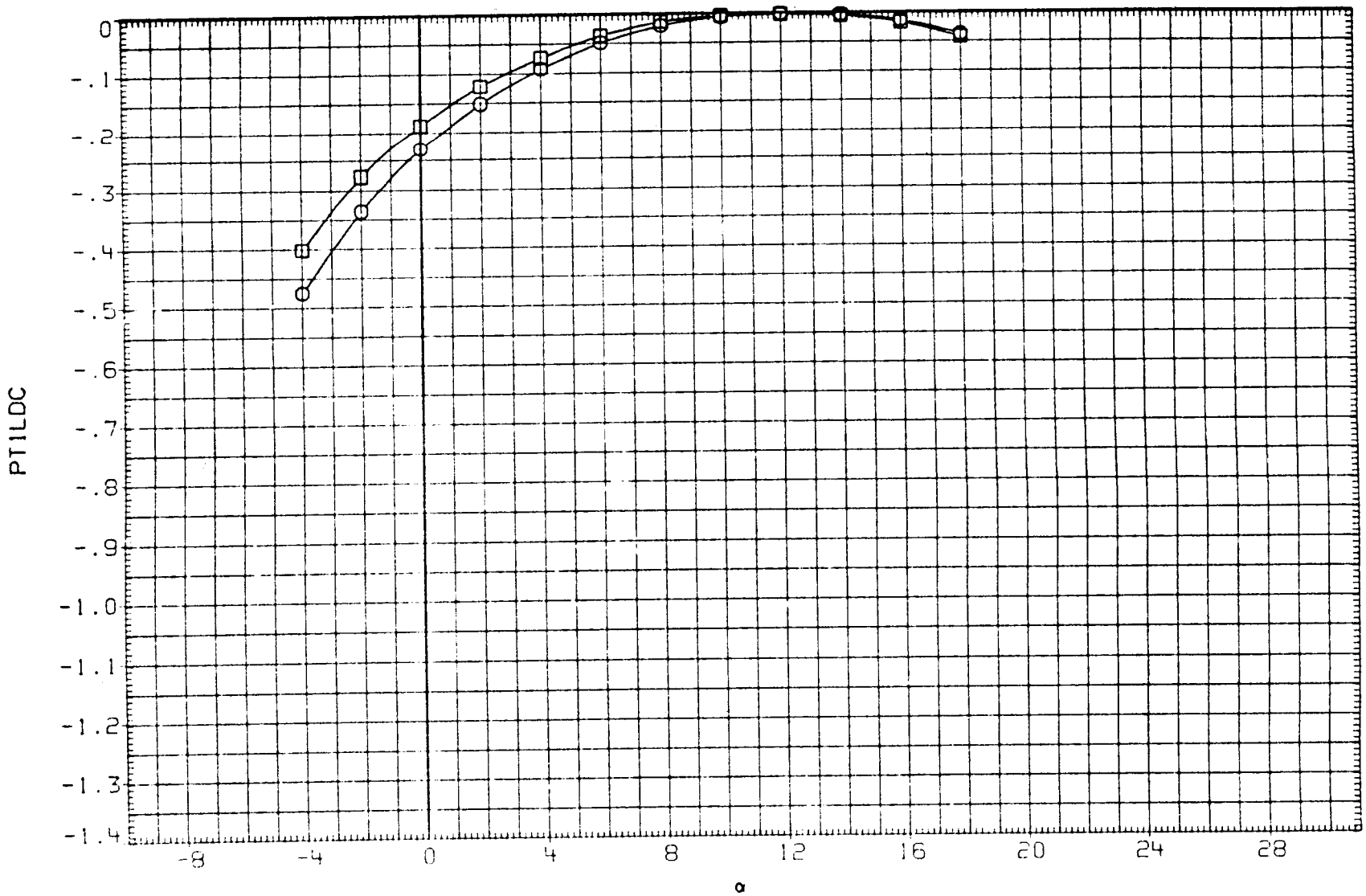


FIG. 60 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
LEFT SIDE

(K)MACH = 1.05 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
LVRU04	○	0A232 LFN.1S AND LA.2P/S SIDE PROBES COMBINED	.000	.000
LVRU06	□	0A232 LFN.1S AND LA.2P/S SIDE PROBES COMBINED	2.000	.000

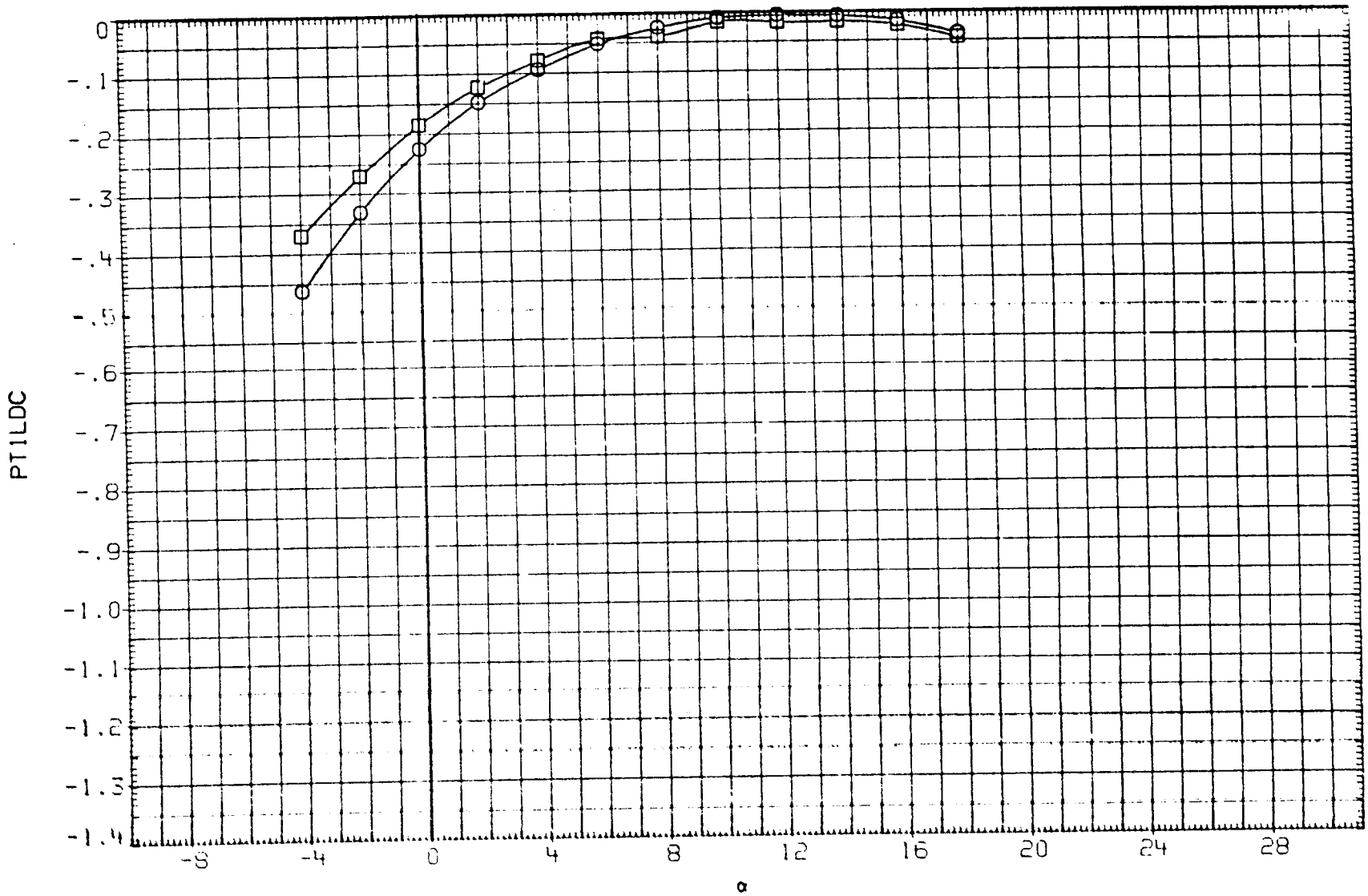


FIG. 60 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
LEFT SIDE

(L)MACH = 1.10 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
LVRU04	○	0A232 LFN.1S AND LA.2P/S SIDE PROBES COMBINED	.000	.000
LVRU06	□	0A232 LFN.1S AND LA.2P/S SIDE PROBES COMBINED	2.000	.000

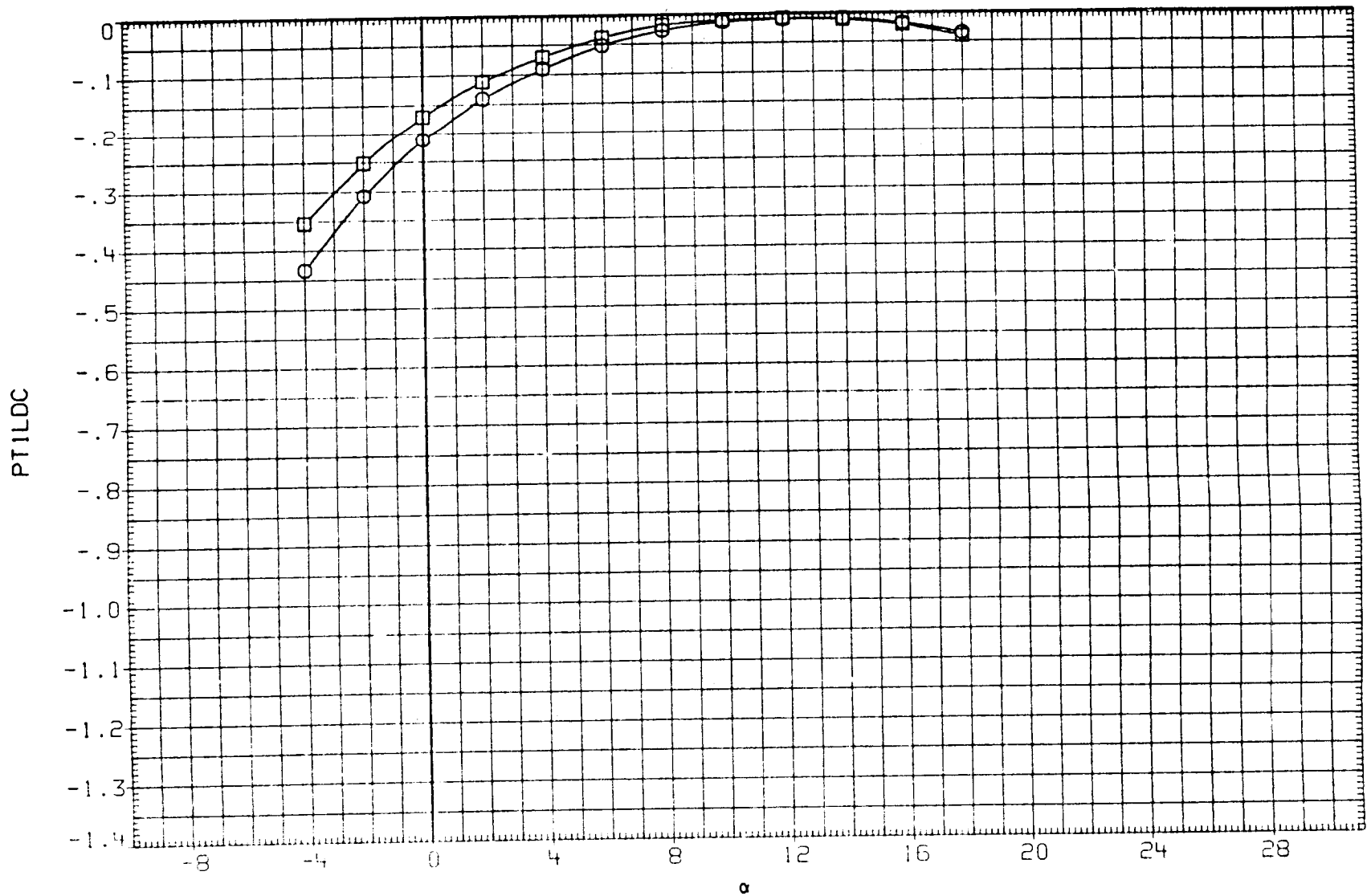


FIG. 60 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
LEFT SIDE

(M)MACH = 1.15 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
LVRU04	○	0A232 LFN.1S AND LA.2P/S SIDE PROBES COMBINED	.000	.000
LVRU06	□	0A232 LFN.1S AND LA.2P/S SIDE PROBES COMBINED	2.000	.000

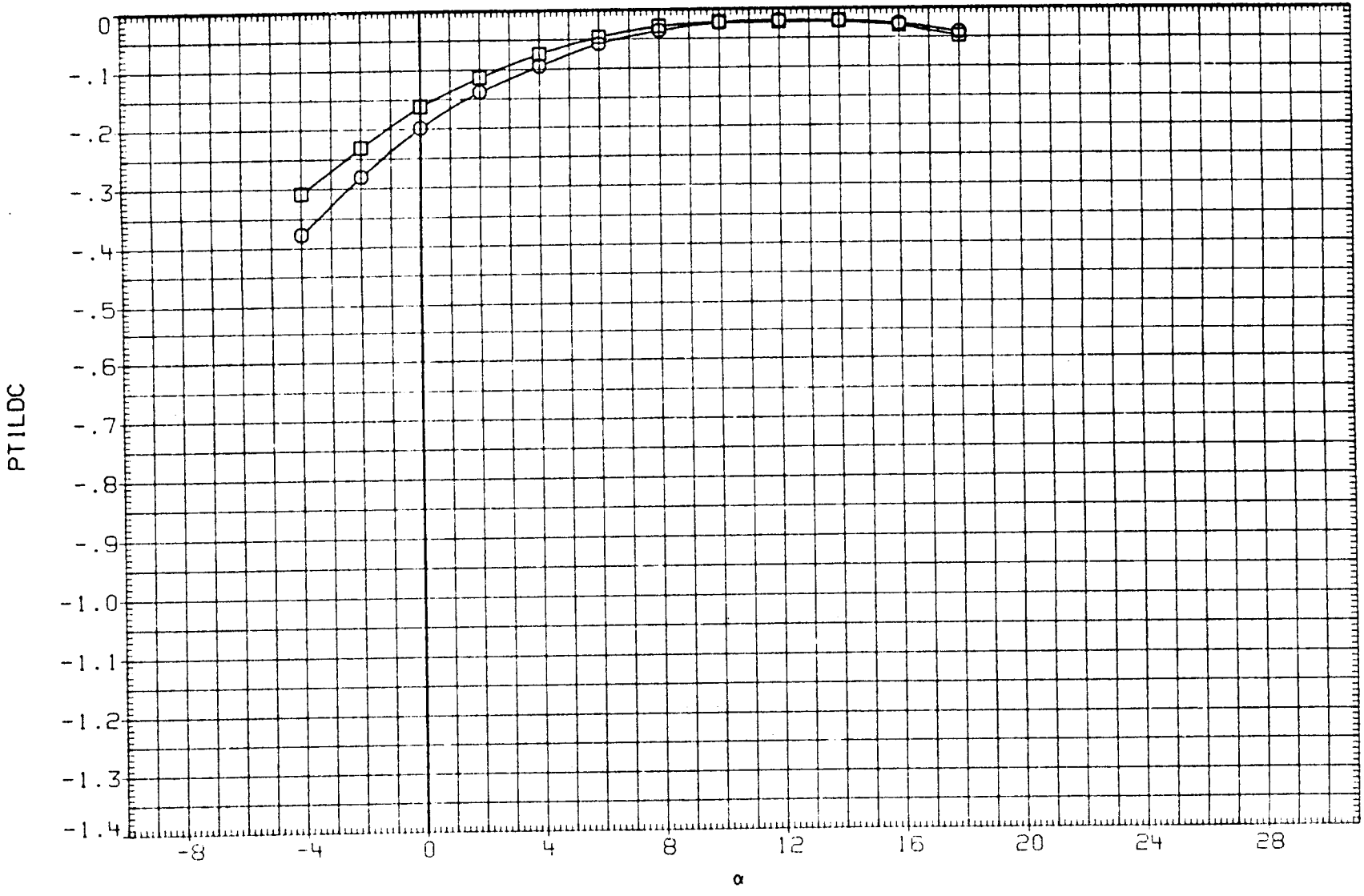


FIG. 60 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
LEFT SIDE

(N)MACH = 1.20 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
LVRU04	○	0A232 LFN.1S AND LA.2P/S SIDE PROBES COMBINED	.000	.000
LVRU06	□	0A232 LFN.1S AND LA.2P/S SIDE PROBES COMBINED	2.000	.000

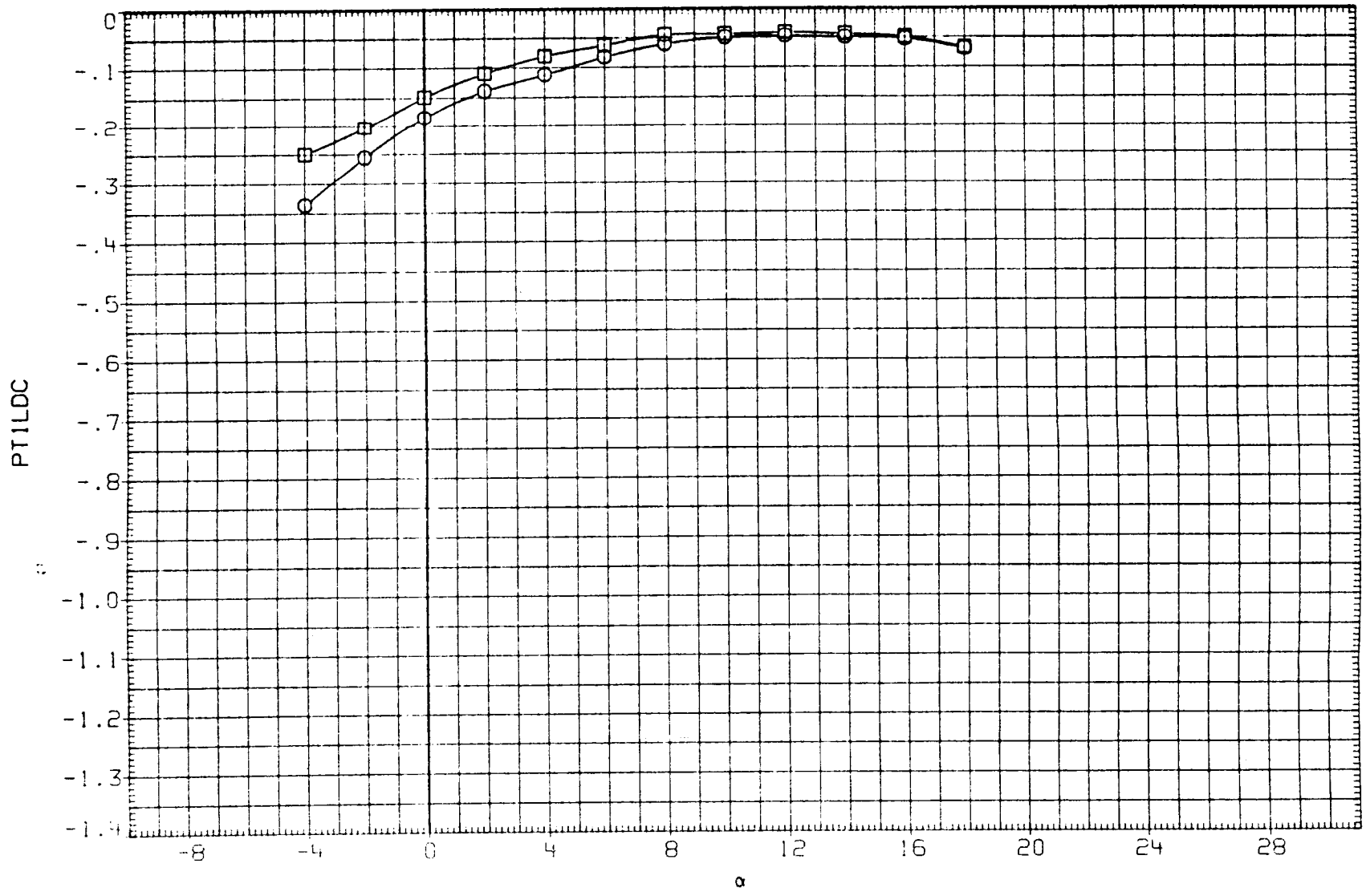


FIG. 60 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
LEFT SIDE

(O)MACH = 1.30 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
LVRU04	○	0A232 LFN.1S AND LA.2P/S SIDE PROBES COMBINED	.000	.000
LVRU06	□	0A232 LFN.1S AND LA.2P/S SIDE PROBES COMBINED	2.000	.000

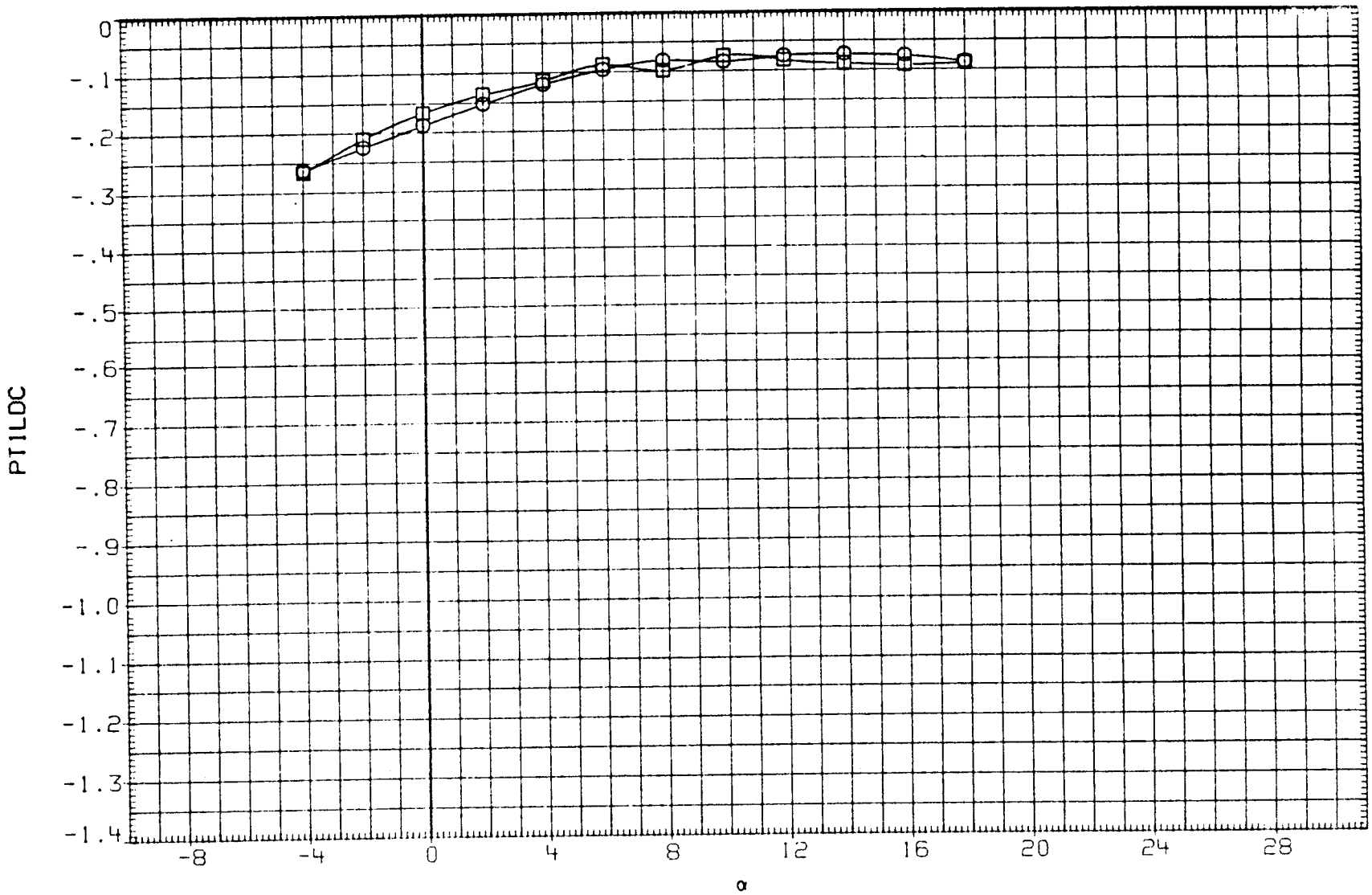


FIG. 60 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
LEFT SIDE

(P)MACH = 1.40 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
LVRU04	○	0A232 LFN.IS AND LA.2P/S SIDE PROBES COMBINED	.000	.000
LVRU06	□	0A232 LFN.IS AND LA.2P/S SIDE PROBES COMBINED	2.000	.000

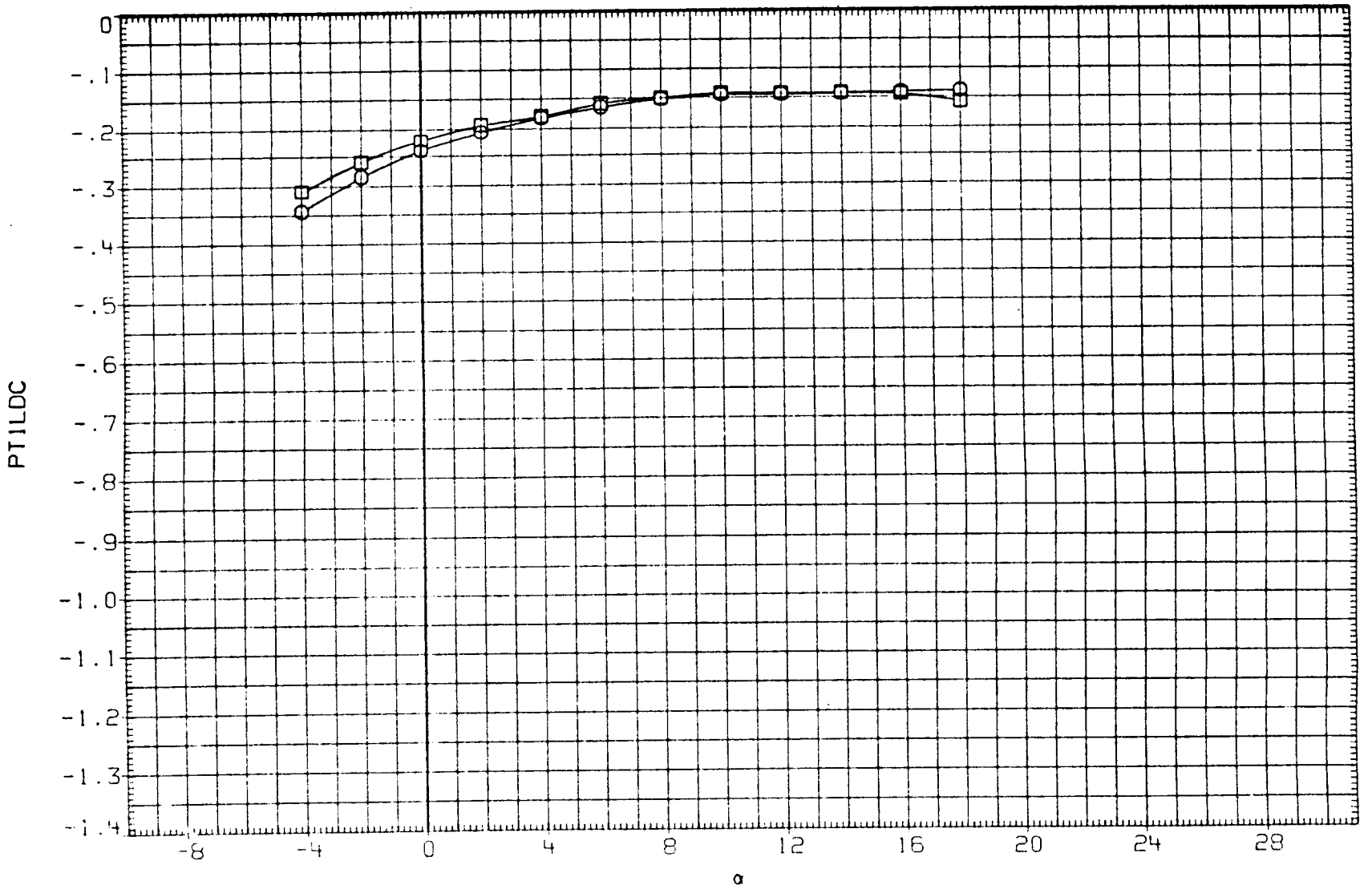


FIG. 60 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
LEFT SIDE

(Q)MACH = 1.55 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
RVRU14	○	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	.000	.000
RVRU15	□	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	2.000	.000

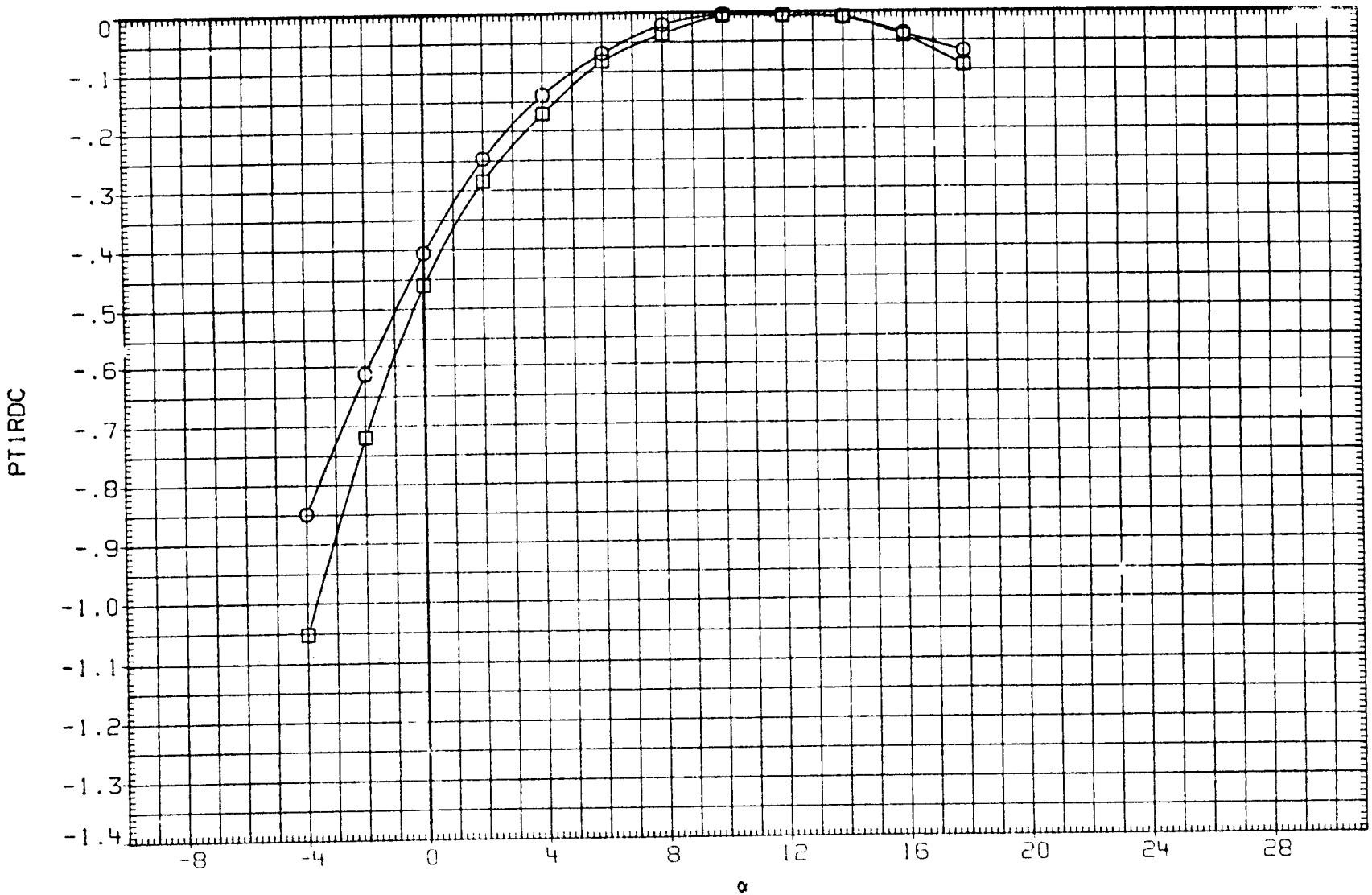


FIG. 61 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
RIGHT SIDE

(A)MACH = .20 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
RVRU14	○	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	.000	.000
RVRU15	□	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	2 000	.000

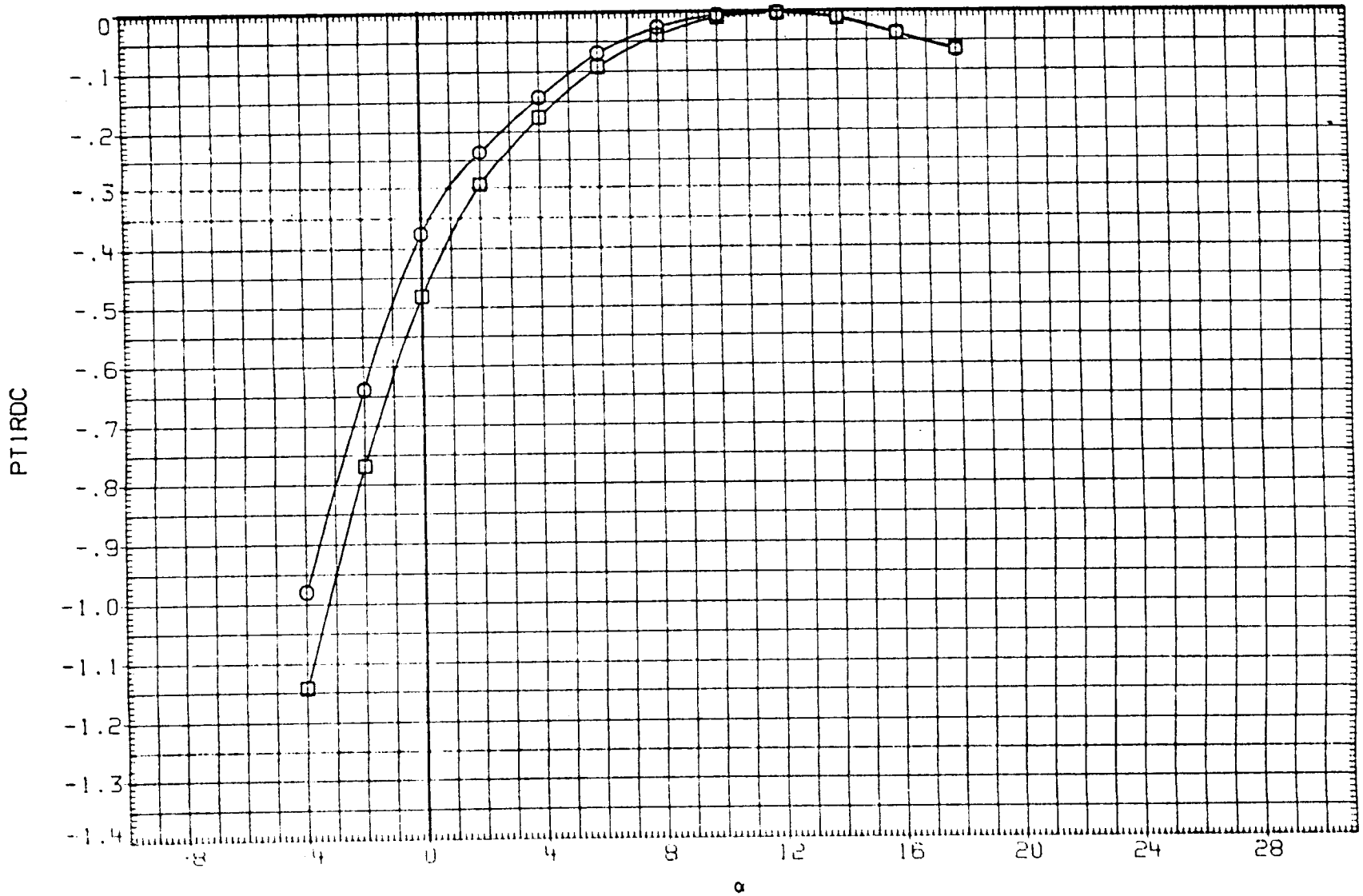


FIG. 61 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
RIGHT SIDE

(B)MACH = .25 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
RVRU14	○	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	.000	.000
RVRU15	□	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	2.000	.000

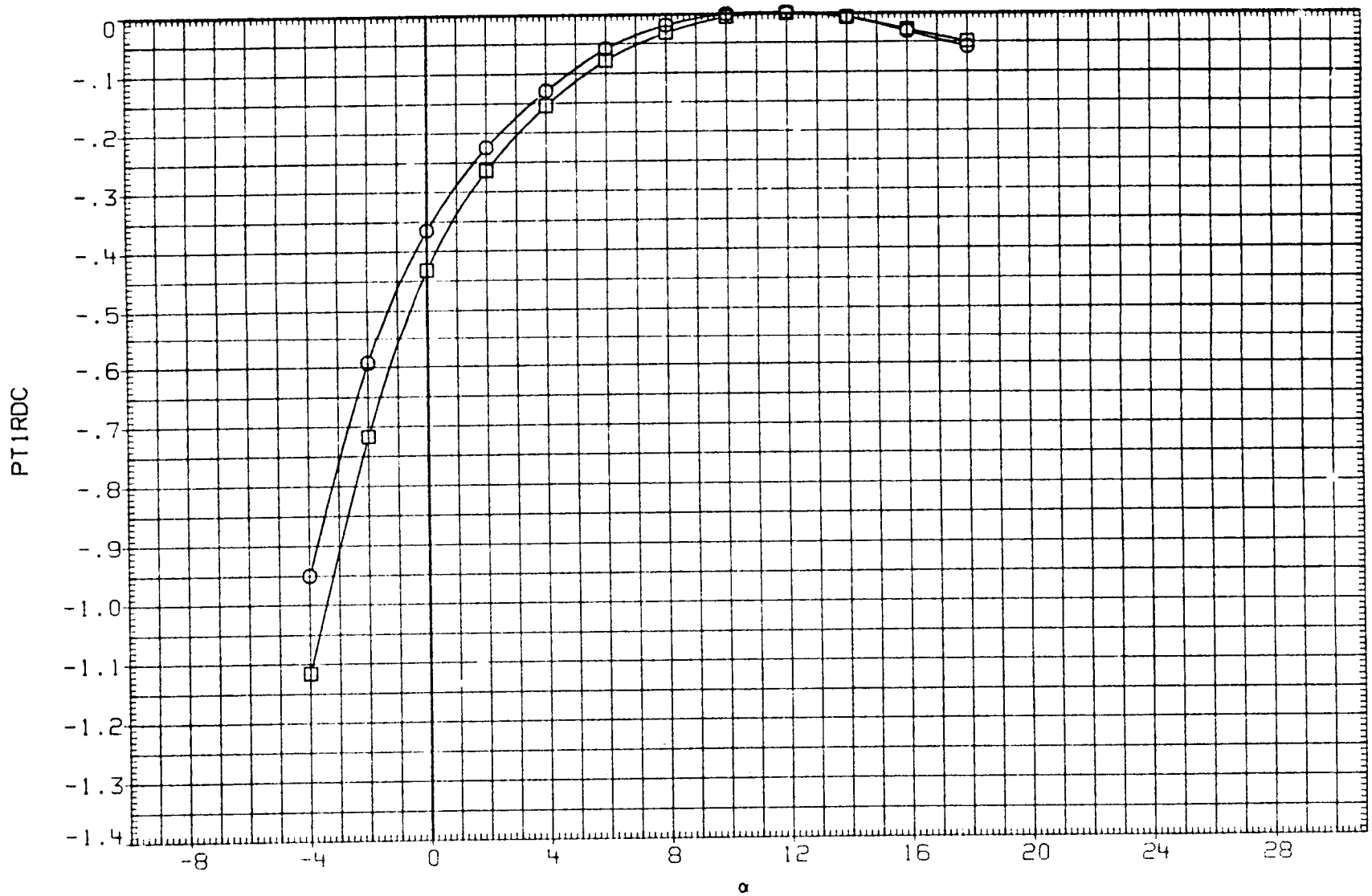


FIG. 61 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
RIGHT SIDE

(C)MACH = .40 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
RVRU14	○	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	.000	.000
RVRU15	□	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	2.000	.000

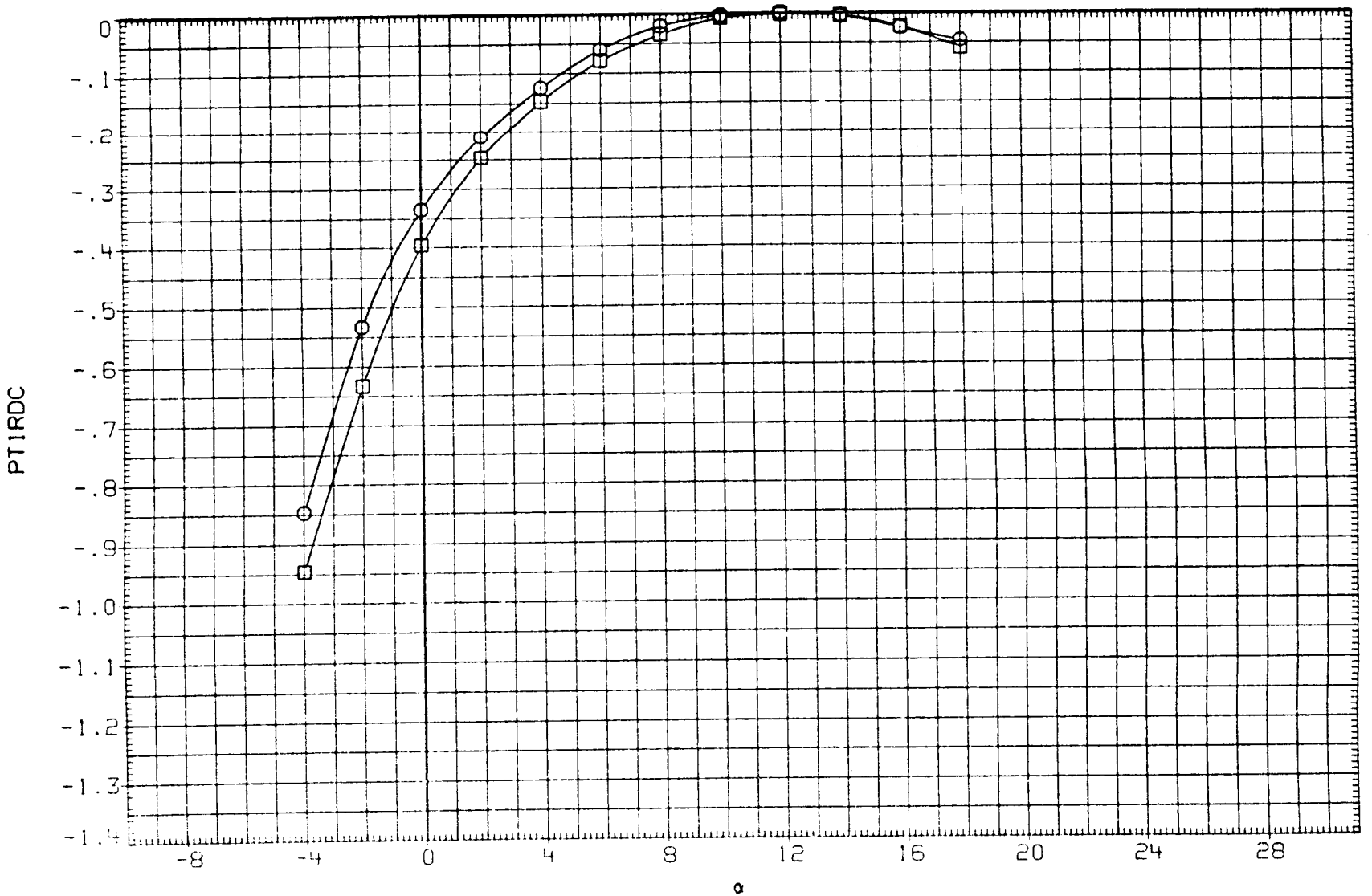


FIG. 61 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
RIGHT SIDE

(D)MACH = .60 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
RVRU14	○	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	.000	.000
RVRU15	□	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	2.000	.000

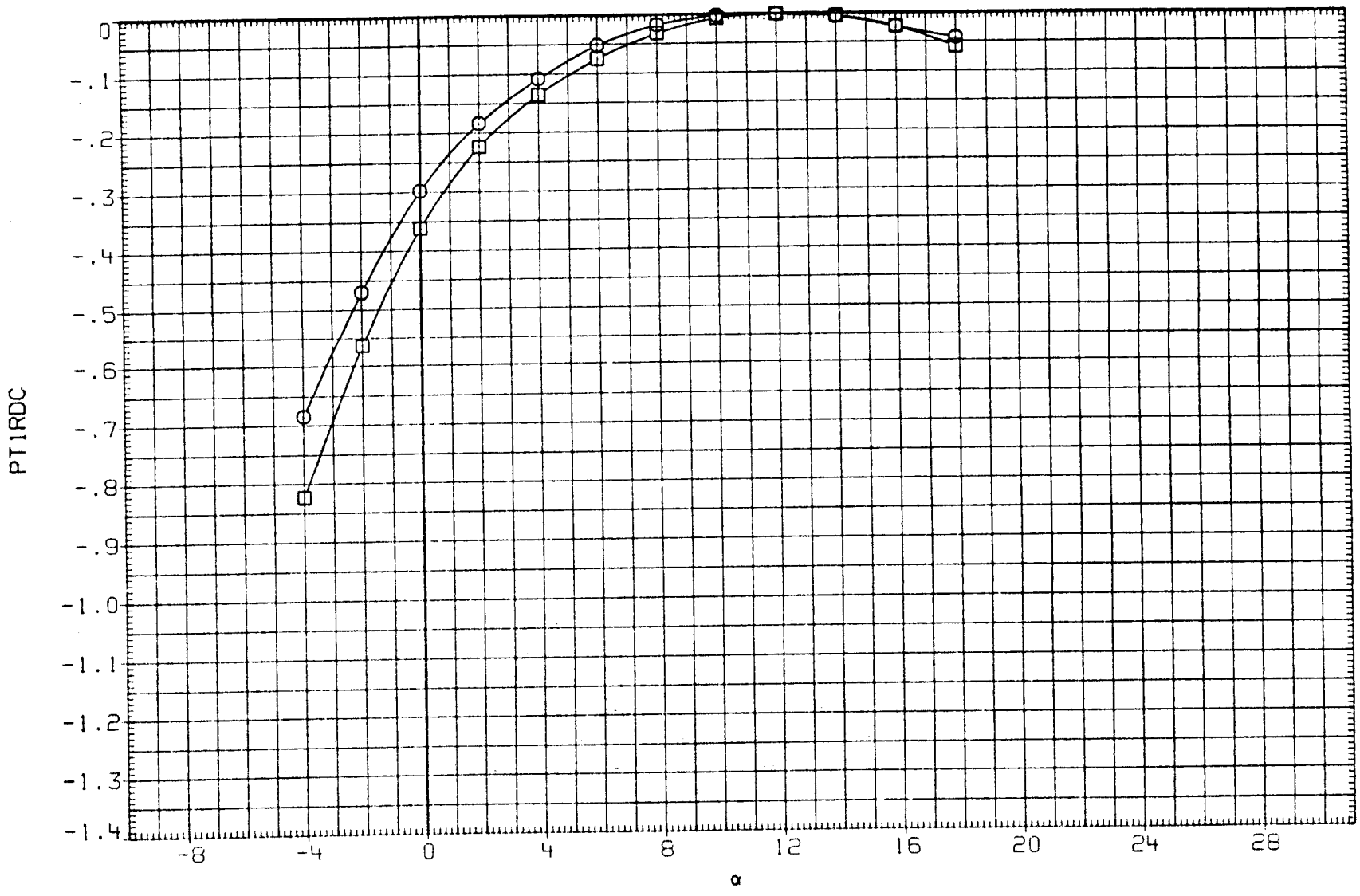


FIG. 61 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
RIGHT SIDE

(E)MACH = .70 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
RVRU14	○	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	.000	.000
RVRU15	□	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	2.000	.000

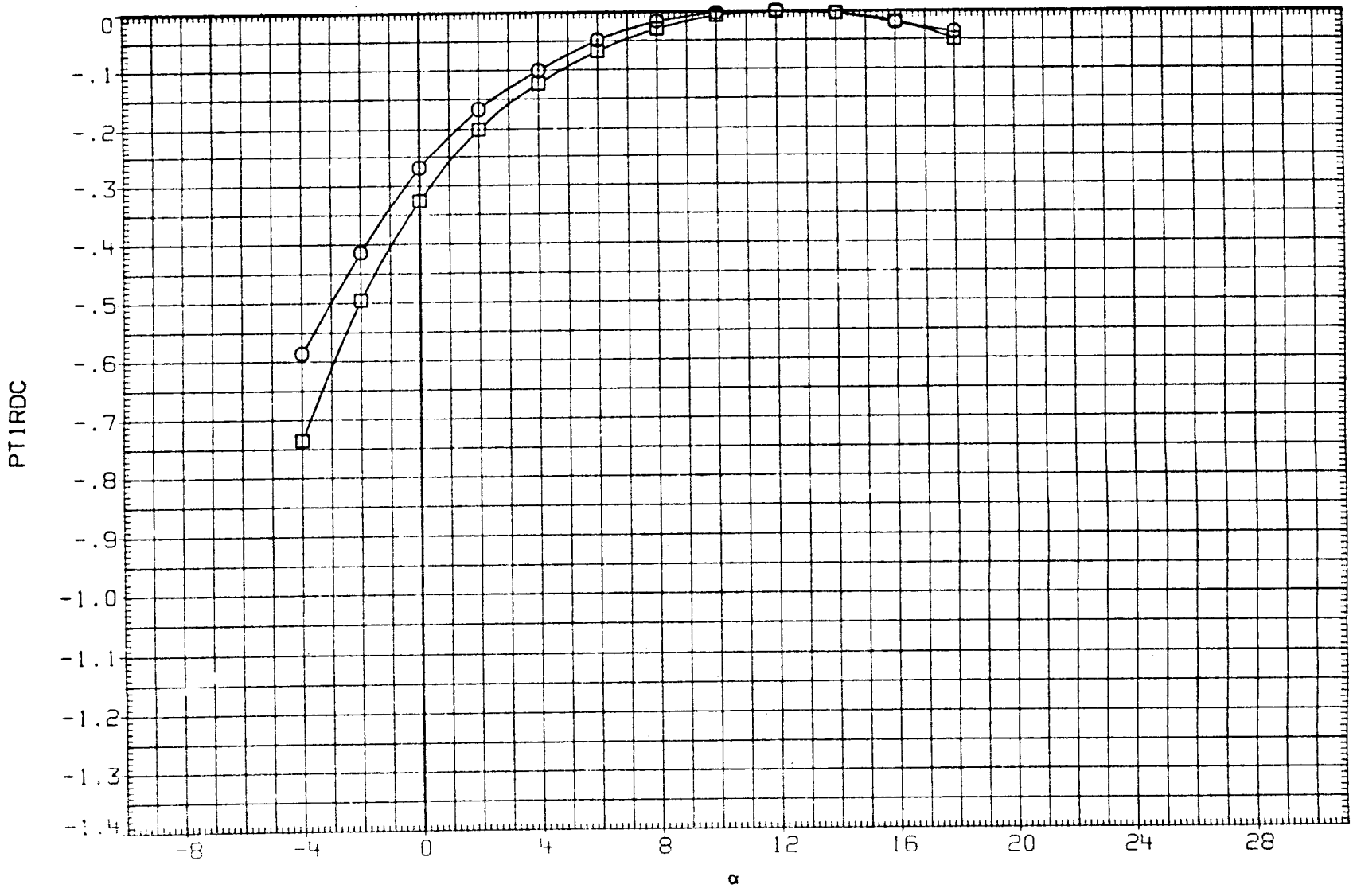


FIG. 61 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
RIGHT SIDE

(F)MACH = .80 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
RVRU14	○	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	.000	.000
RVRU15	□	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	2.000	.000

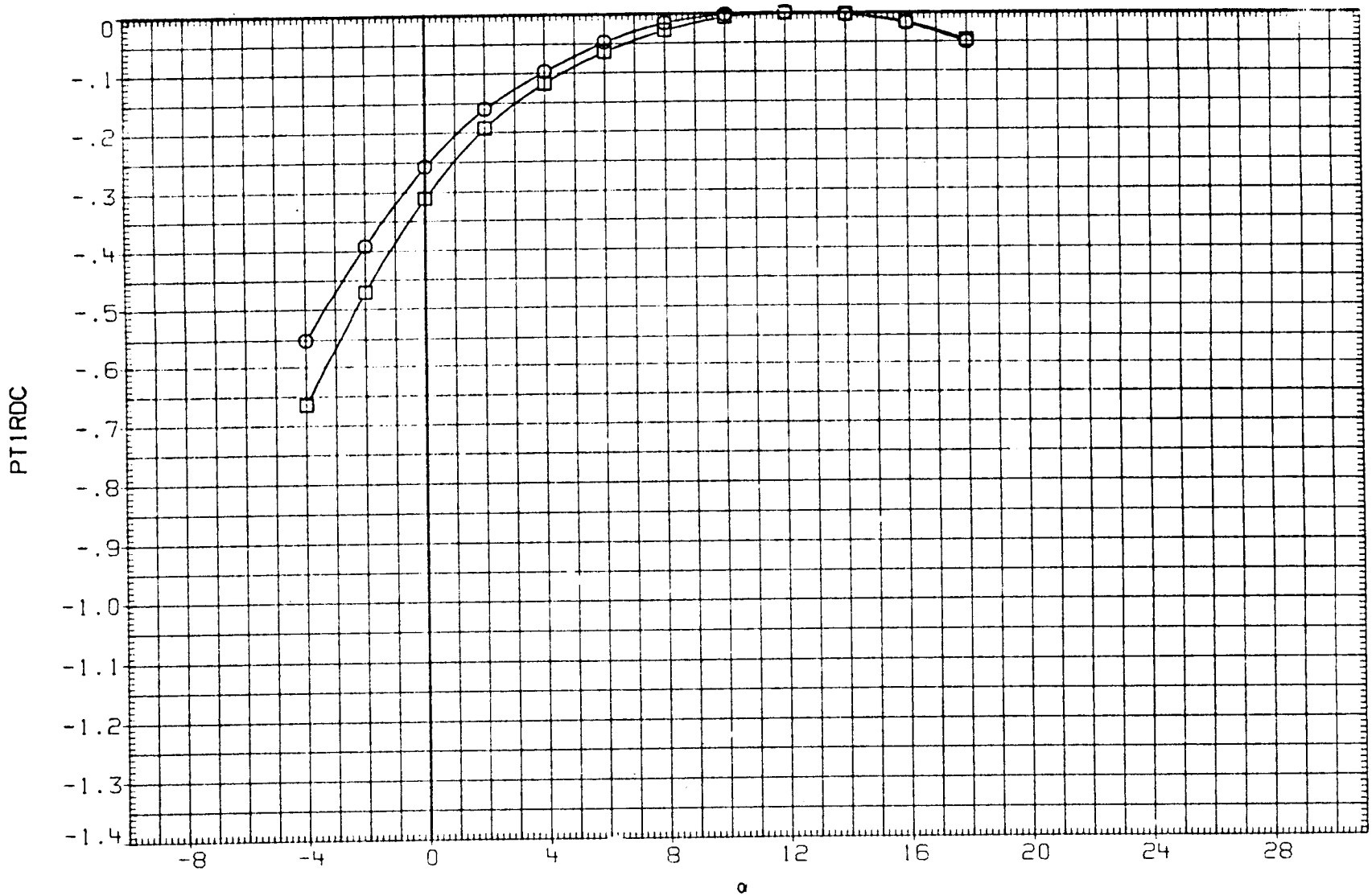


FIG. 61 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
RIGHT SIDE

(G)MACH = .85 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
RVRU15	○	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	.000	.000
RVRU15	□	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	2.000	.000

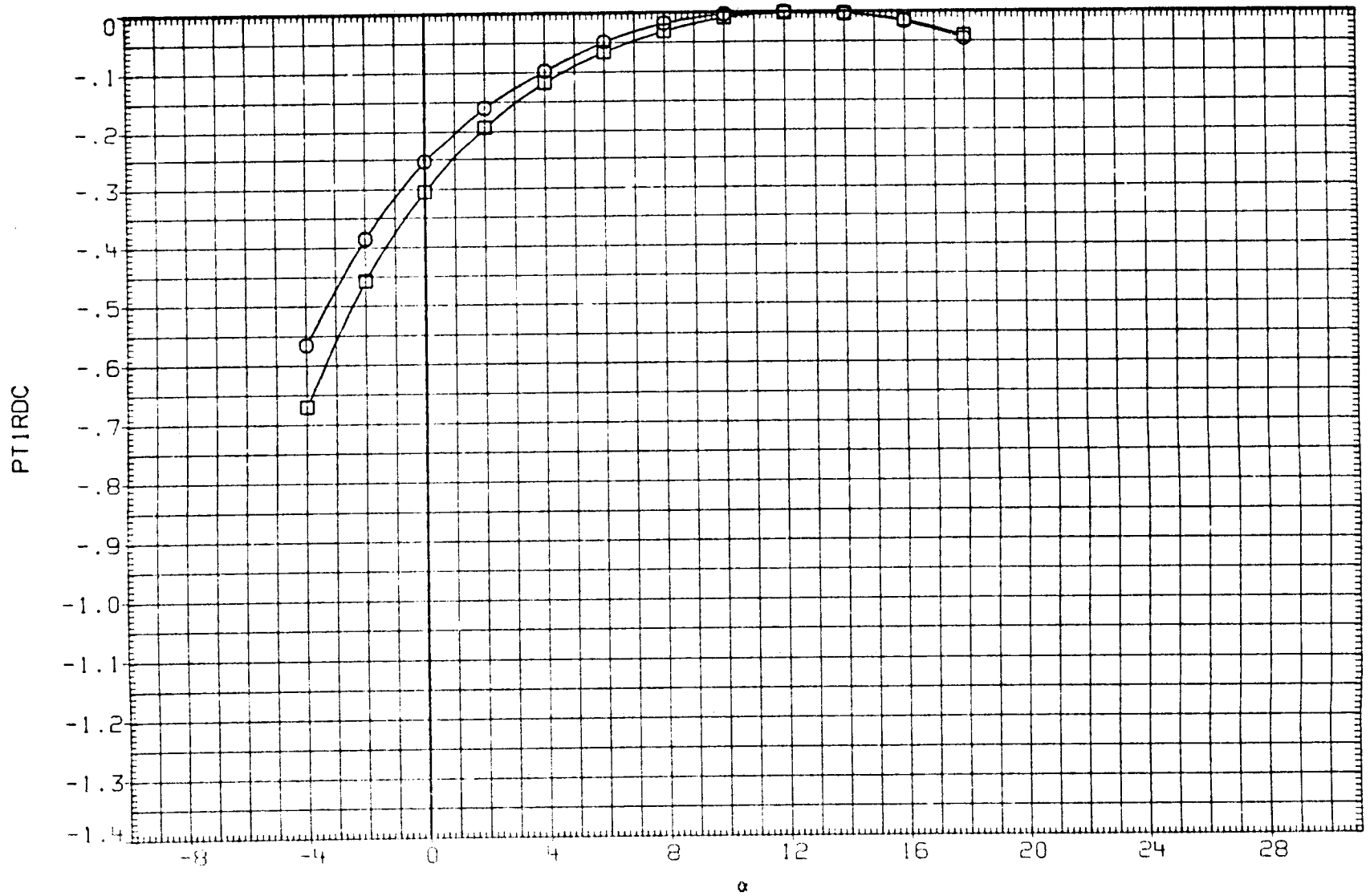


FIG. 61 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
RIGHT SIDE

(H)MACH = .90 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
RVRU14	○	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	.000	.000
RVRU15	□	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	2.000	.000

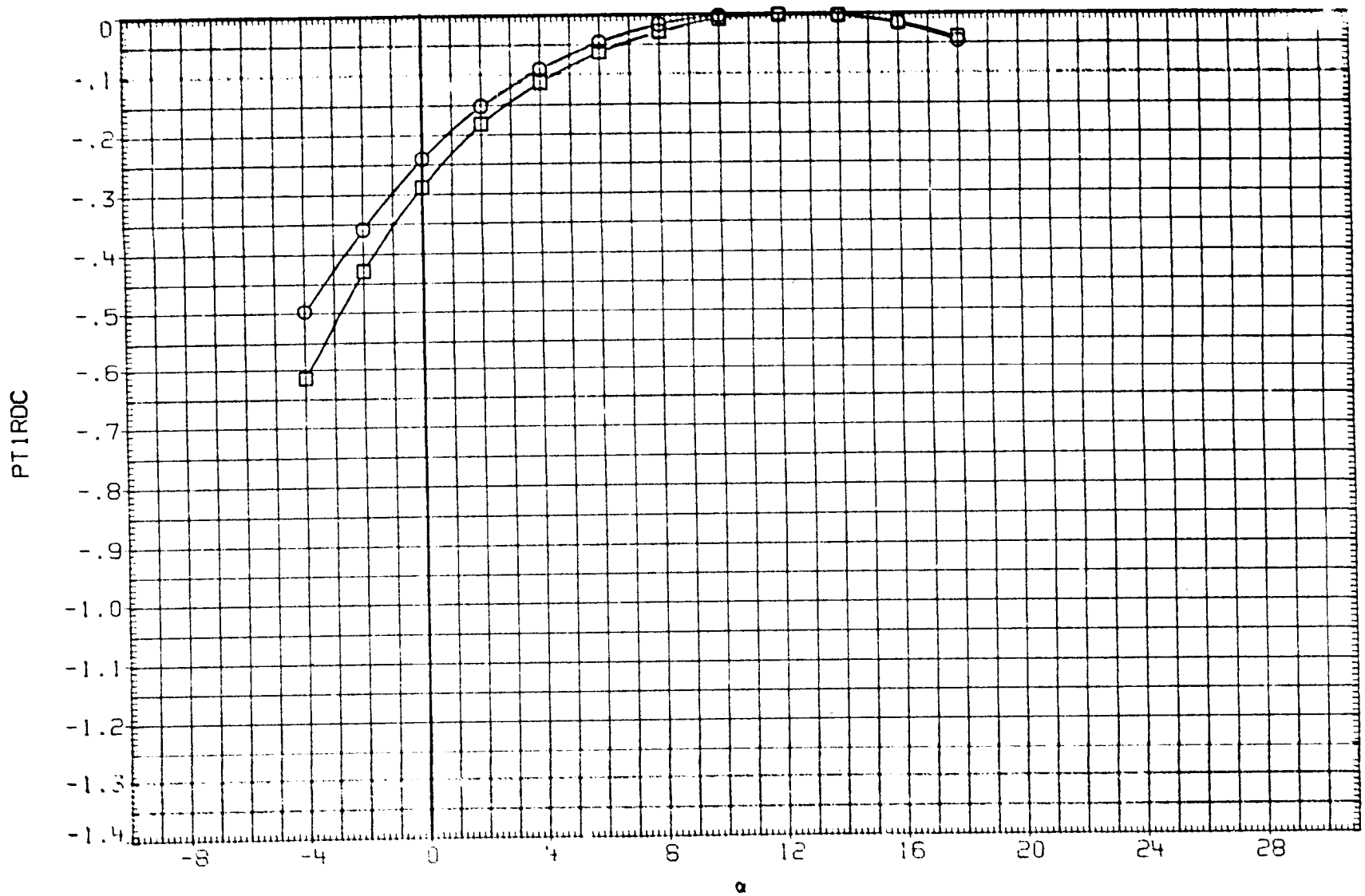


FIG. 61 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
RIGHT SIDE

( ) MACH = .95 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
RVRU14	○	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	.000	.000
RVRU15	□	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	2.000	.000

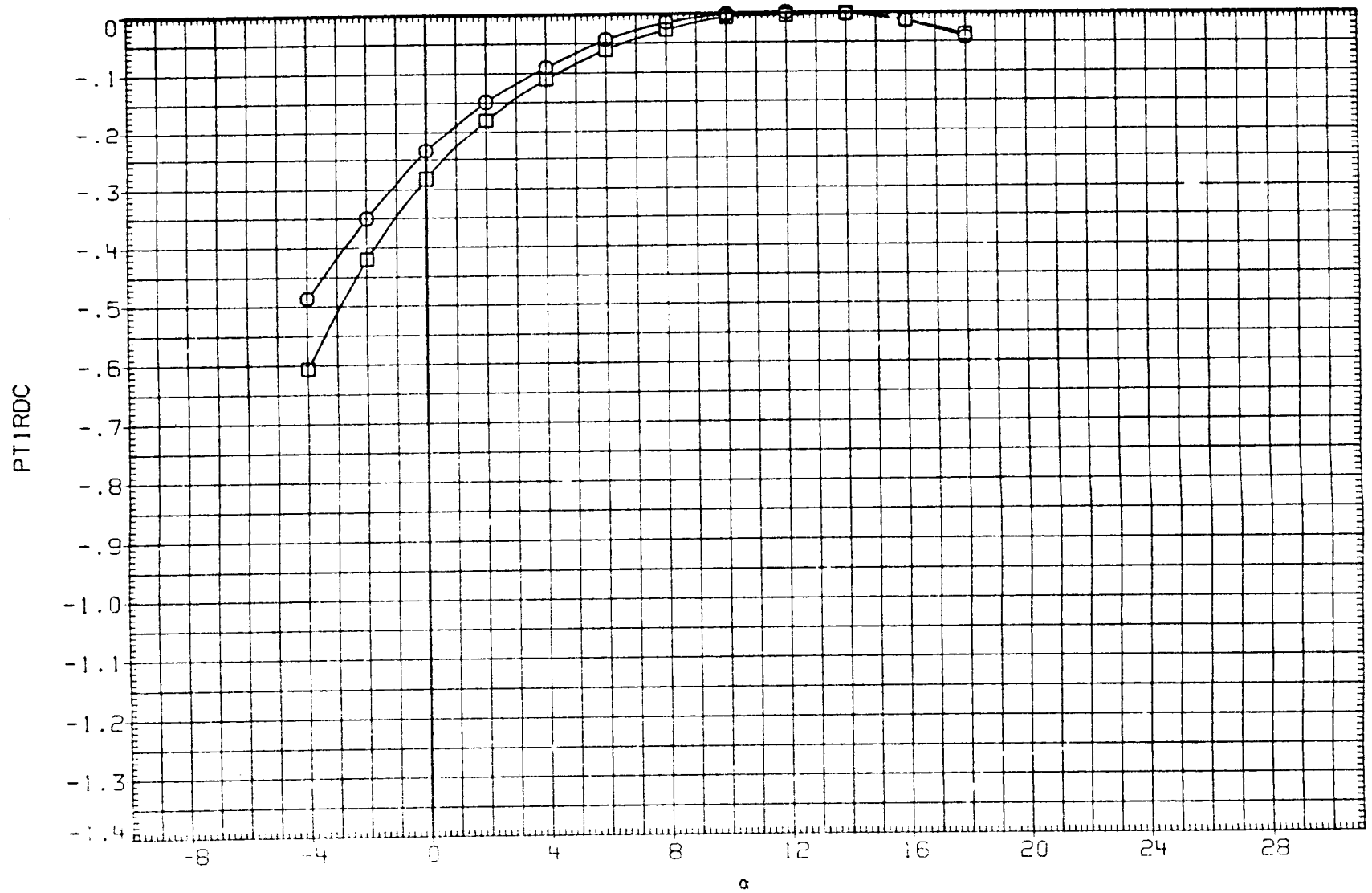


FIG. 61 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
RIGHT SIDE

(J)MACH = .98 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
RVRU14	○	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	.000	.000
RVRU15	□	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	2.000	.000

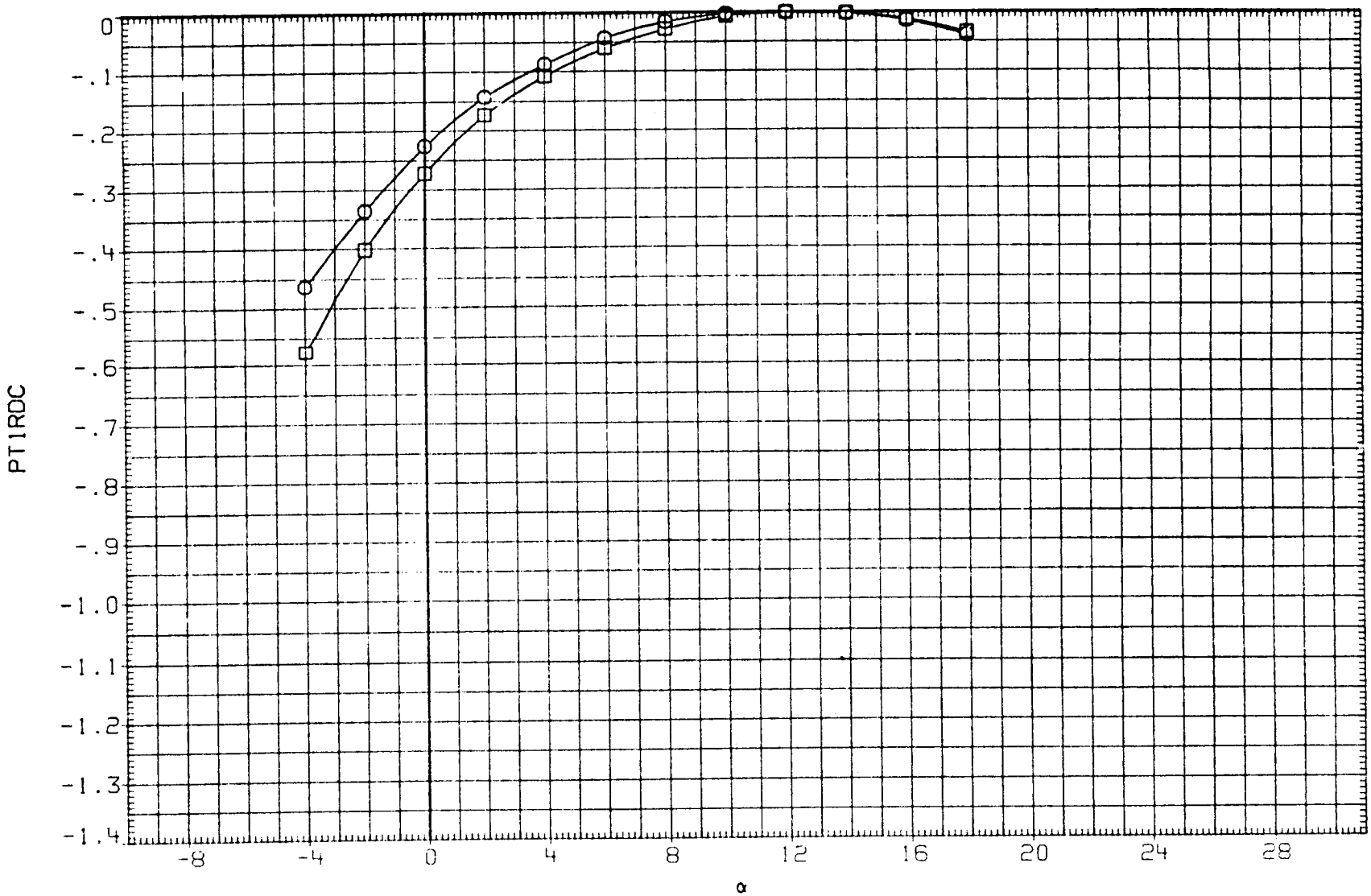


FIG. 61 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
RIGHT SIDE

(K)MACH = 1.05 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
RVRU14	○	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	.000	.000
RVRU15	□	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	2.000	.000

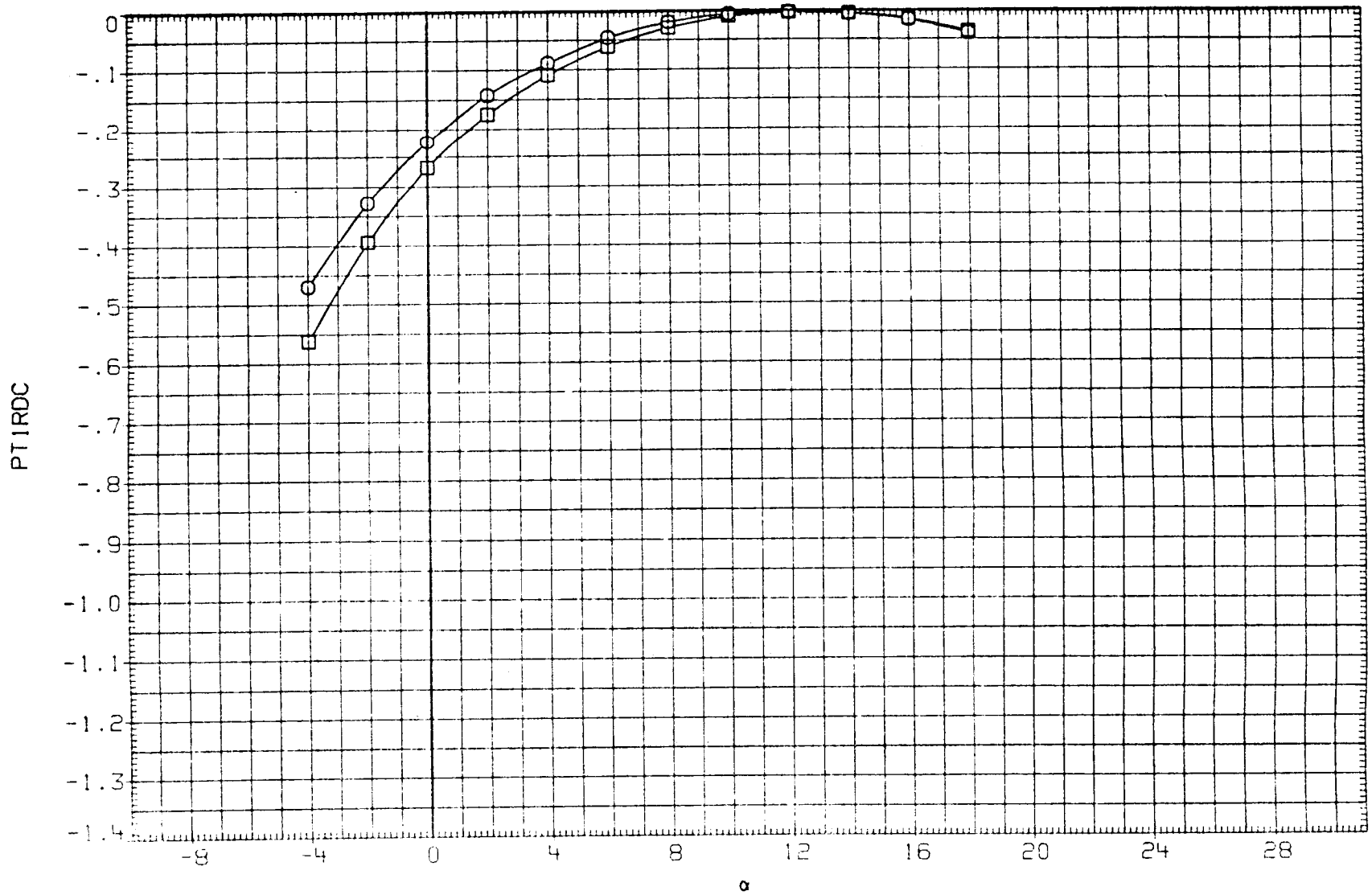


FIG. 61 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
RIGHT SIDE

(L)MACH = 1.10 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
RVRU14	○	0A232 RFN.1S AND RA.2P/S SIDE PRCBES COMBINED	.000	.000
RVRU15	□	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	2.000	.000

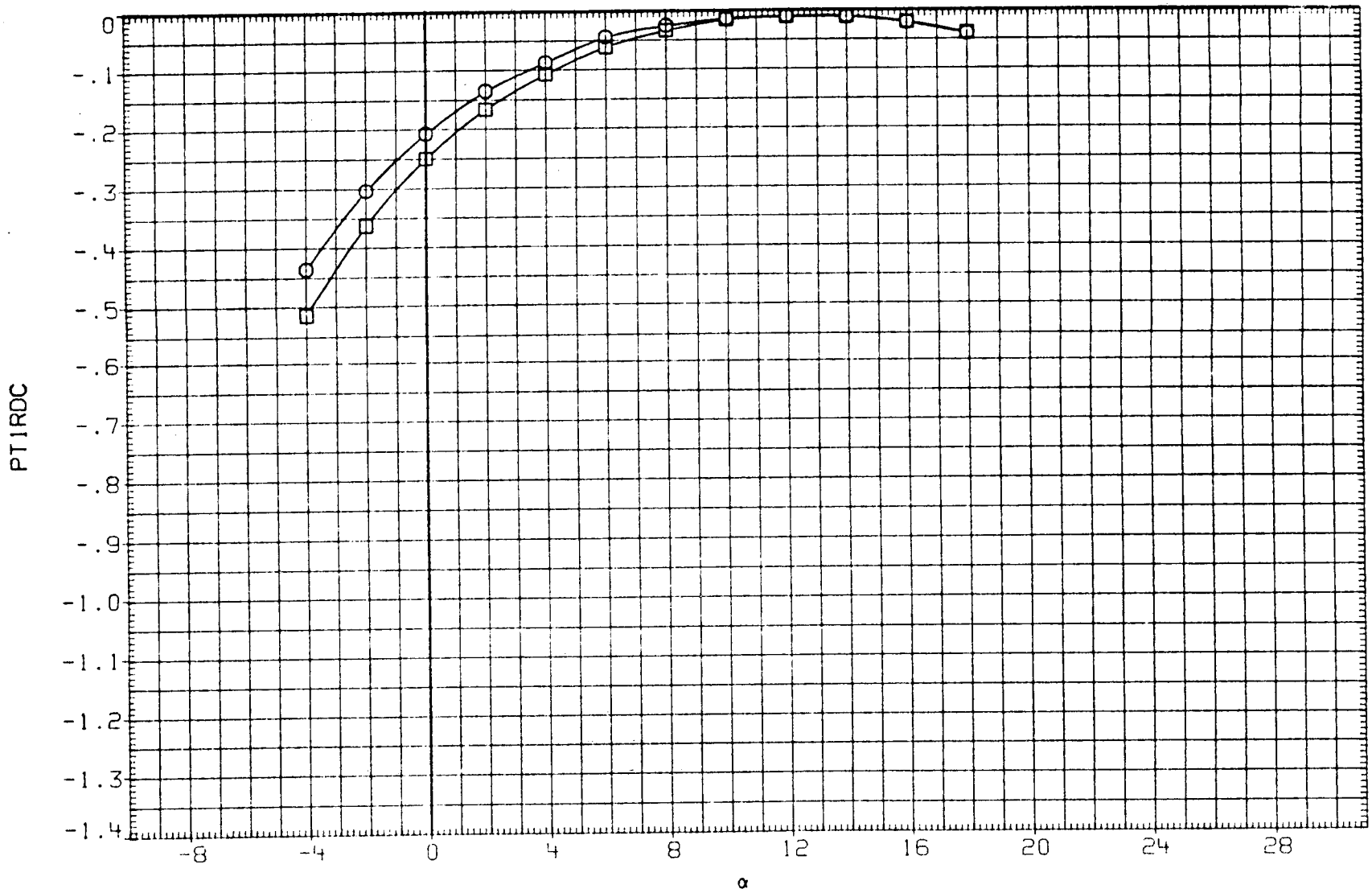


FIG. 61 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
RIGHT SIDE

(M)MACH = 1.15 DATE 10 AUG 78 PAGE 99

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
RVRU14	○	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	.000	.000
RVRU15	□	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	2.000	.000

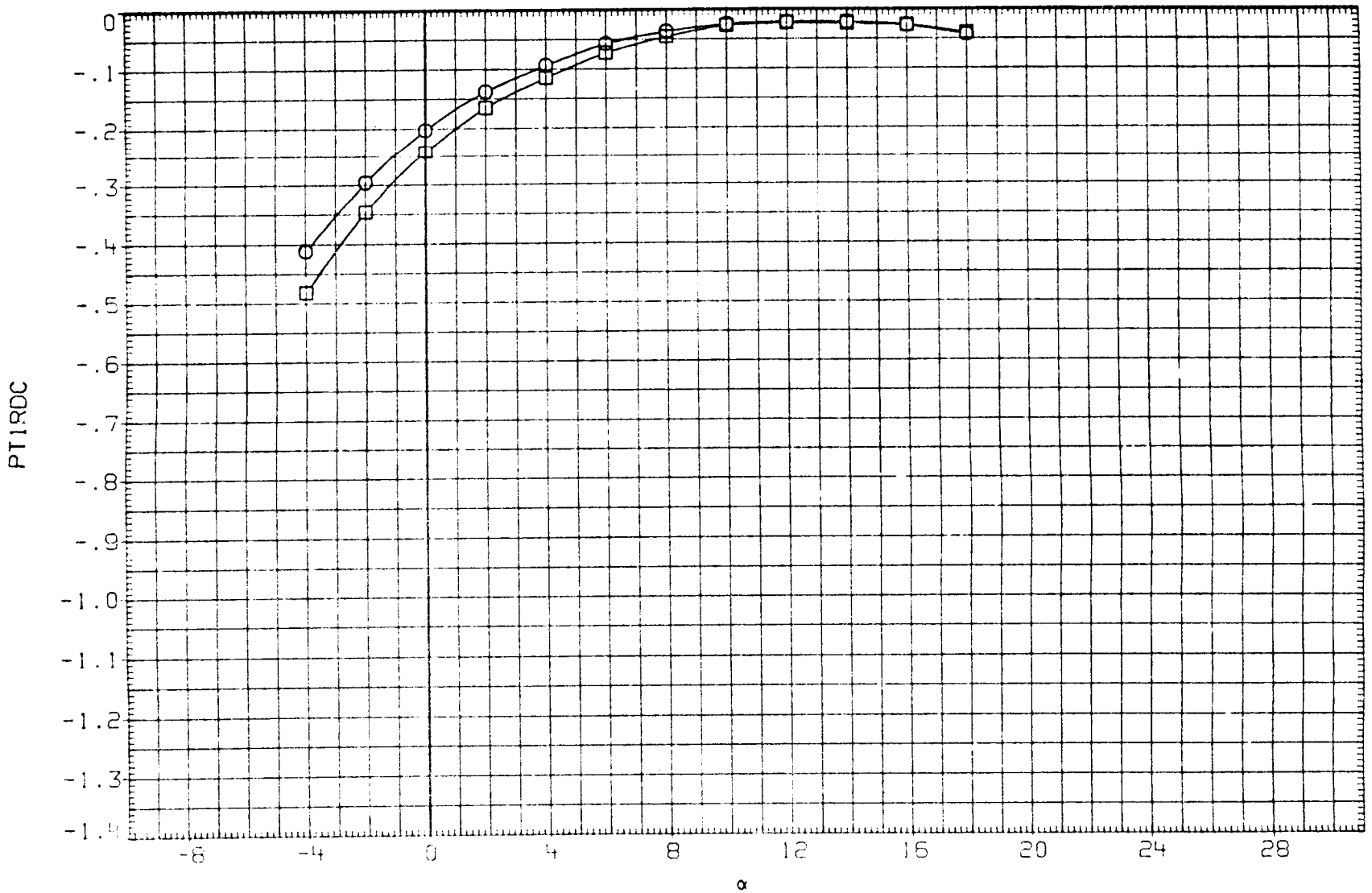


FIG. 61 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
RIGHT SIDE

(N)MACH = 1.20 DATE 10 AUG 78 PAGE 100

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
RVRU14	○	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	.000	.000
RVRU15	□	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	2.000	.000

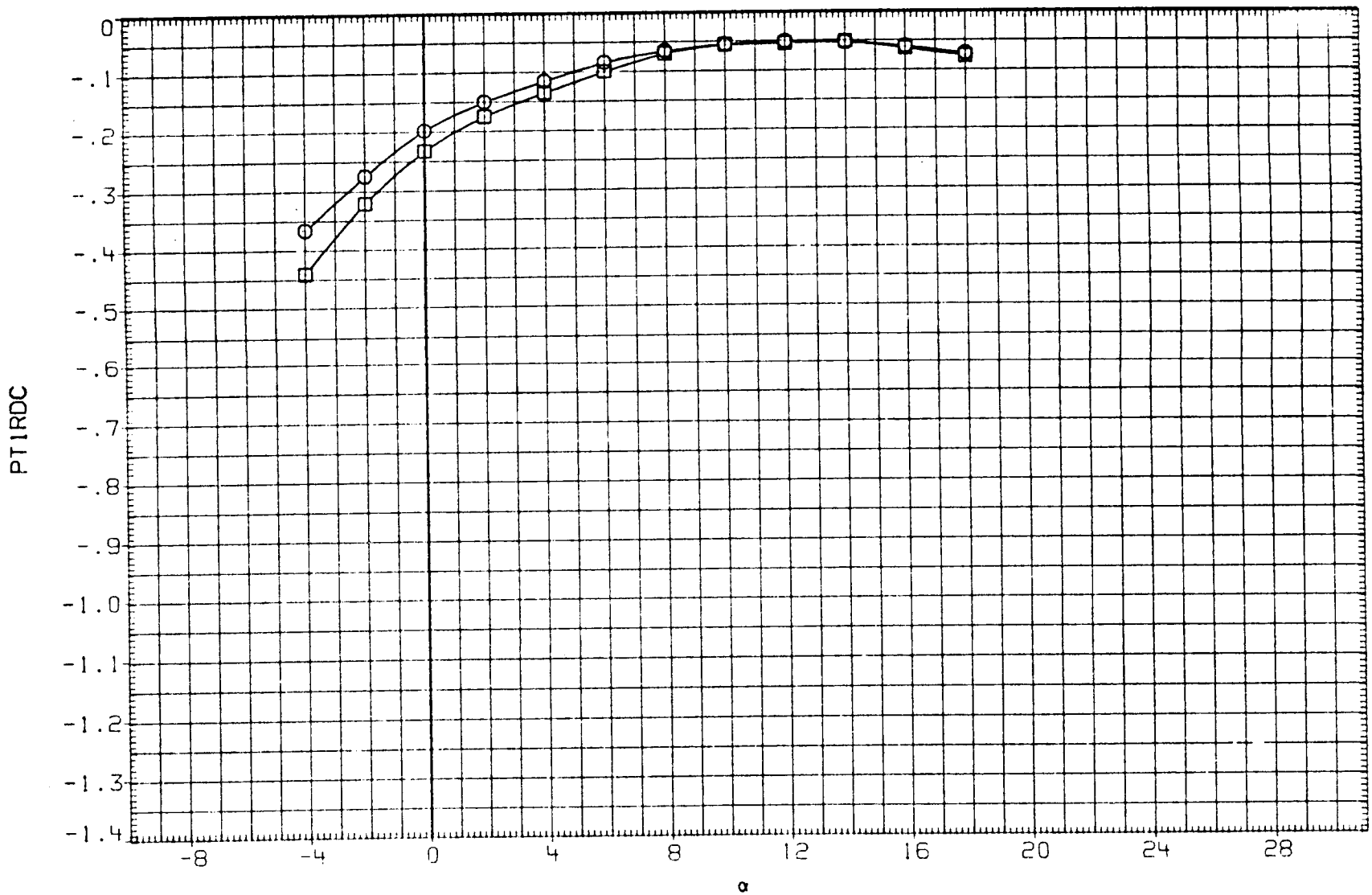


FIG. 61 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
RIGHT SIDE

(O)MACH = 1.30 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
RVRU14	○	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	.000	.000
RVRU15	□	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	2.000	.000

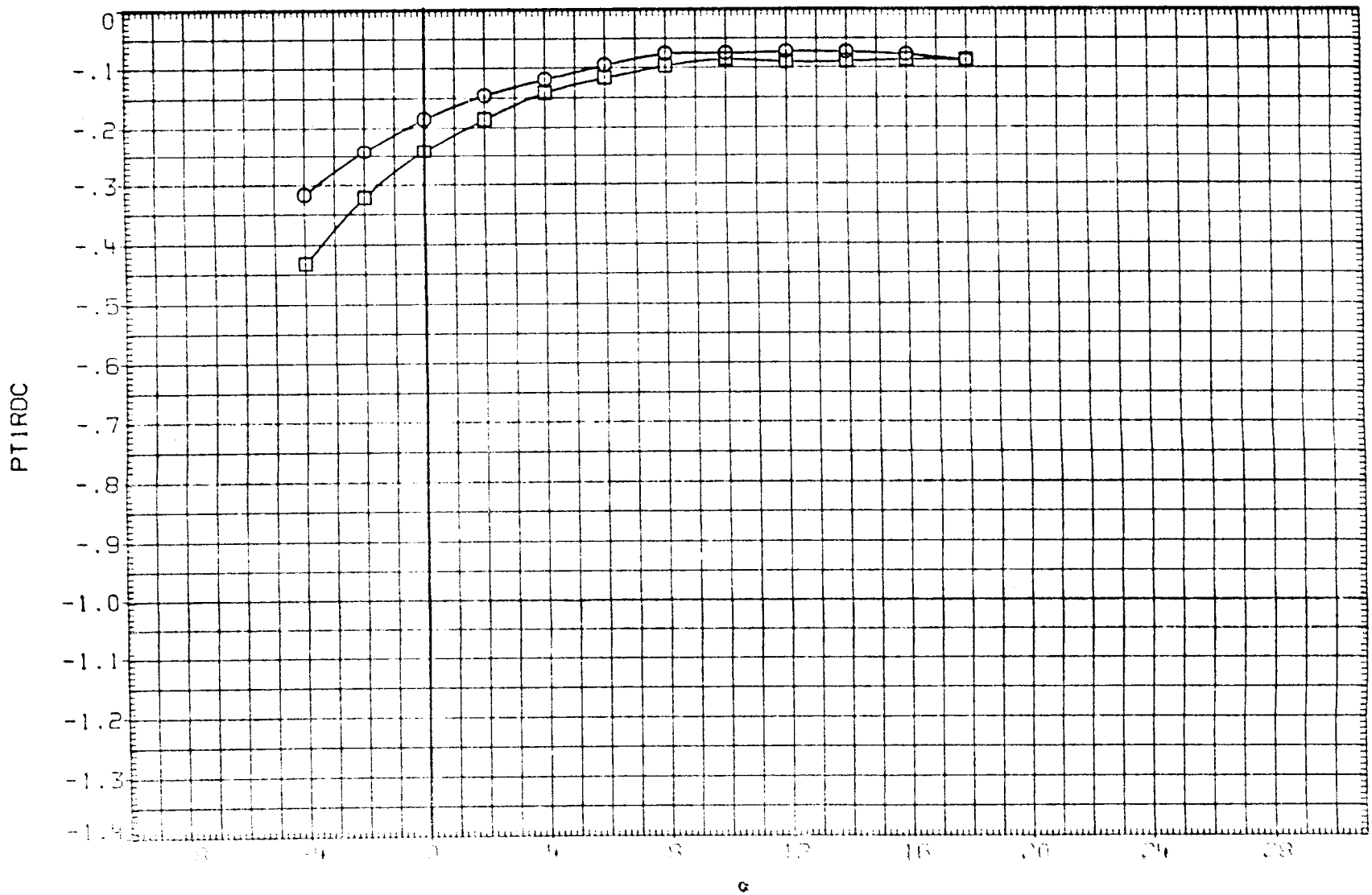


FIG. 61 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
RIGHT SIDE

(P1MACH = 1.40 DATE 10 AUG 78

DATA SET SYMBOL		CONFIGURATION	BETA	PHI
RVR [illegible]	○	0A232 [illegible]N.1S AND RA.2P/S SIDE PROBES COMBINED	.000	.000
RVRU15	□	0A232 RF[illegible].1S AND RA.2P/S SIDE PROBES COMBINED	2.000	.000

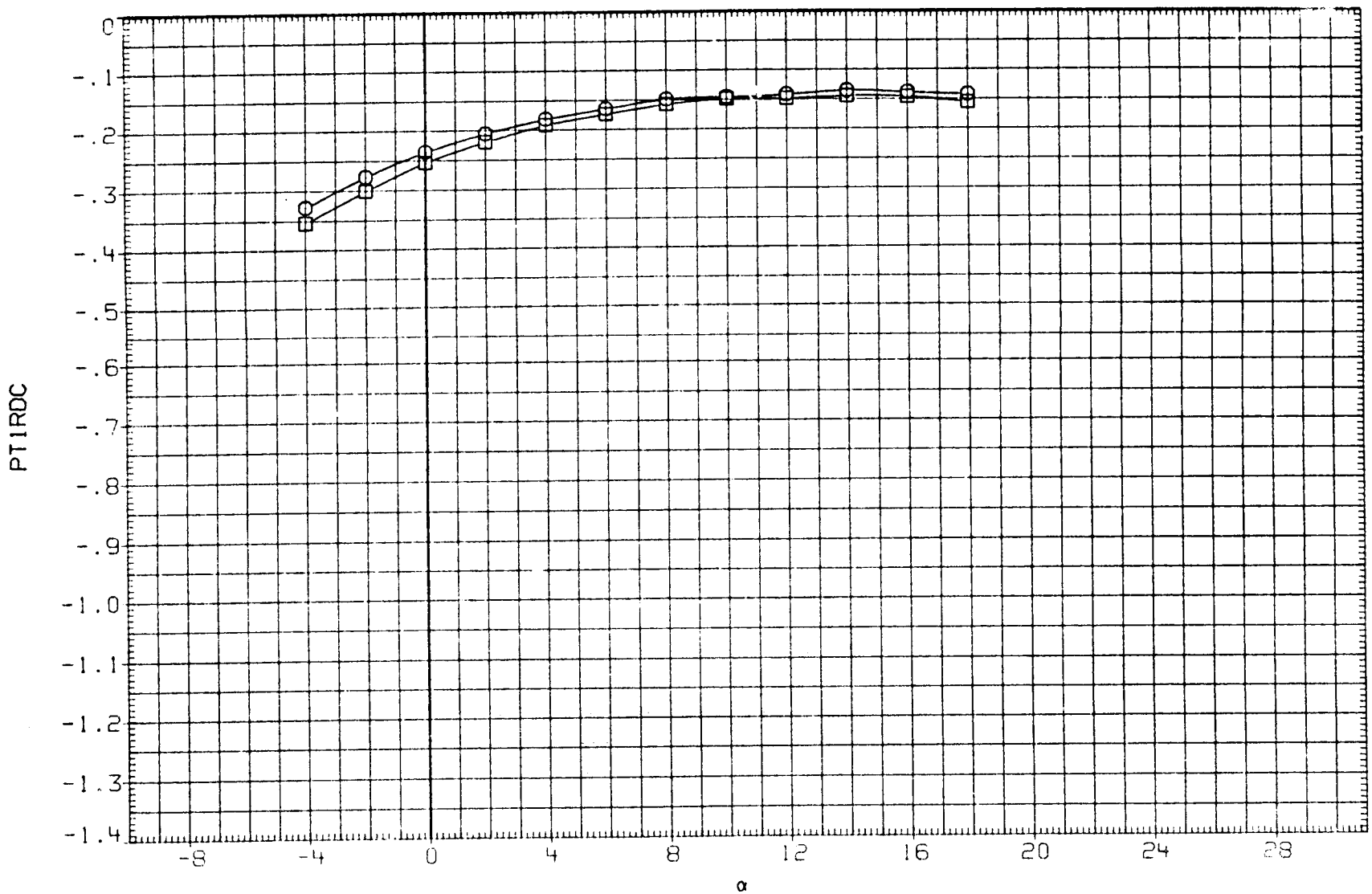


FIG. 61 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
RIGHT SIDE

(Q)MACH = 1.55 DATE 10 AUG 78 PAGE 103

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA04	○	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA06	□	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

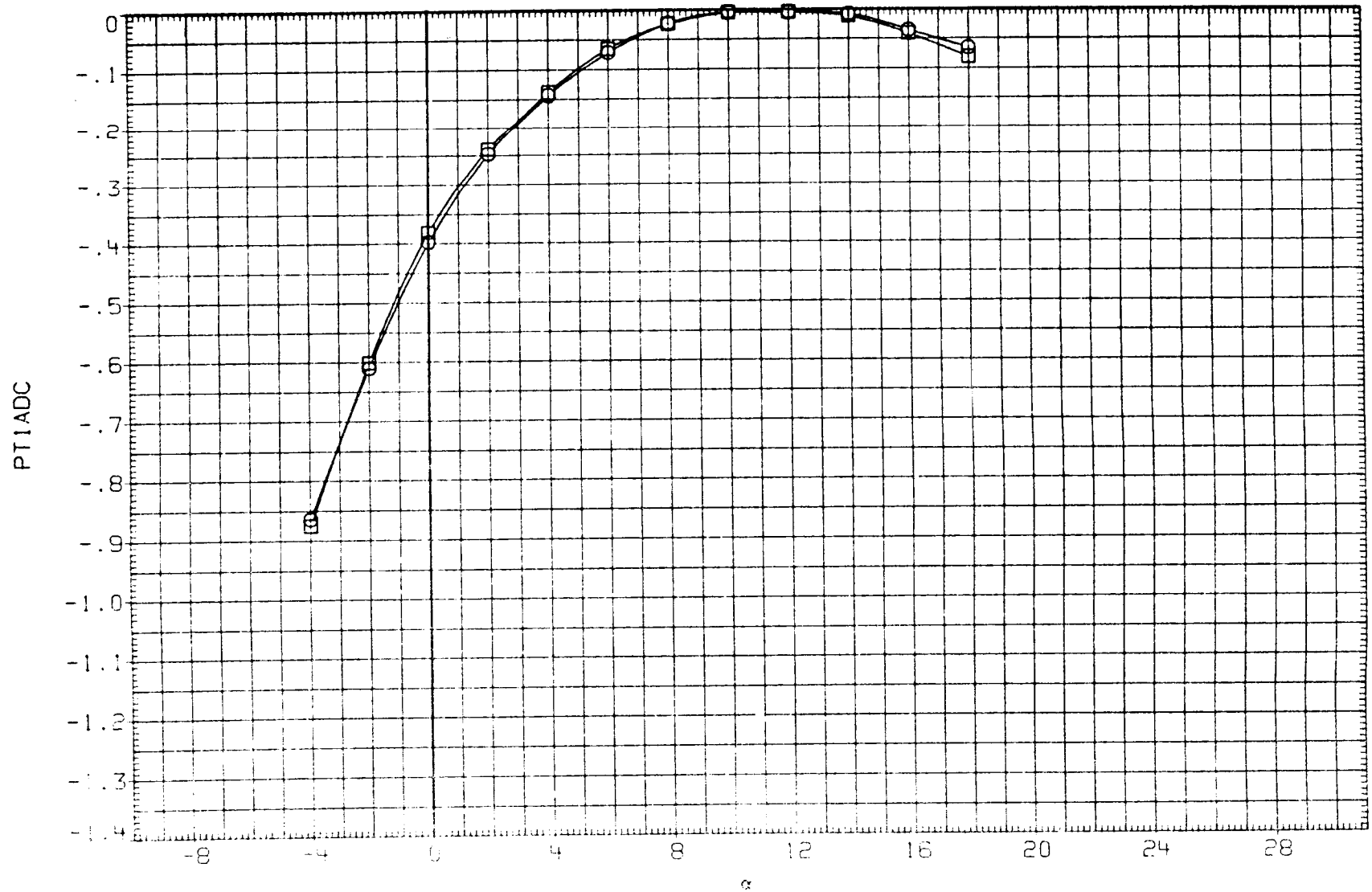


FIG. 62 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
AVERAGED (L + R) / 2

(A)MACH = .20 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRAGA	○	0A232 FN.15 A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRAGB	□	0A232 FN.15 A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

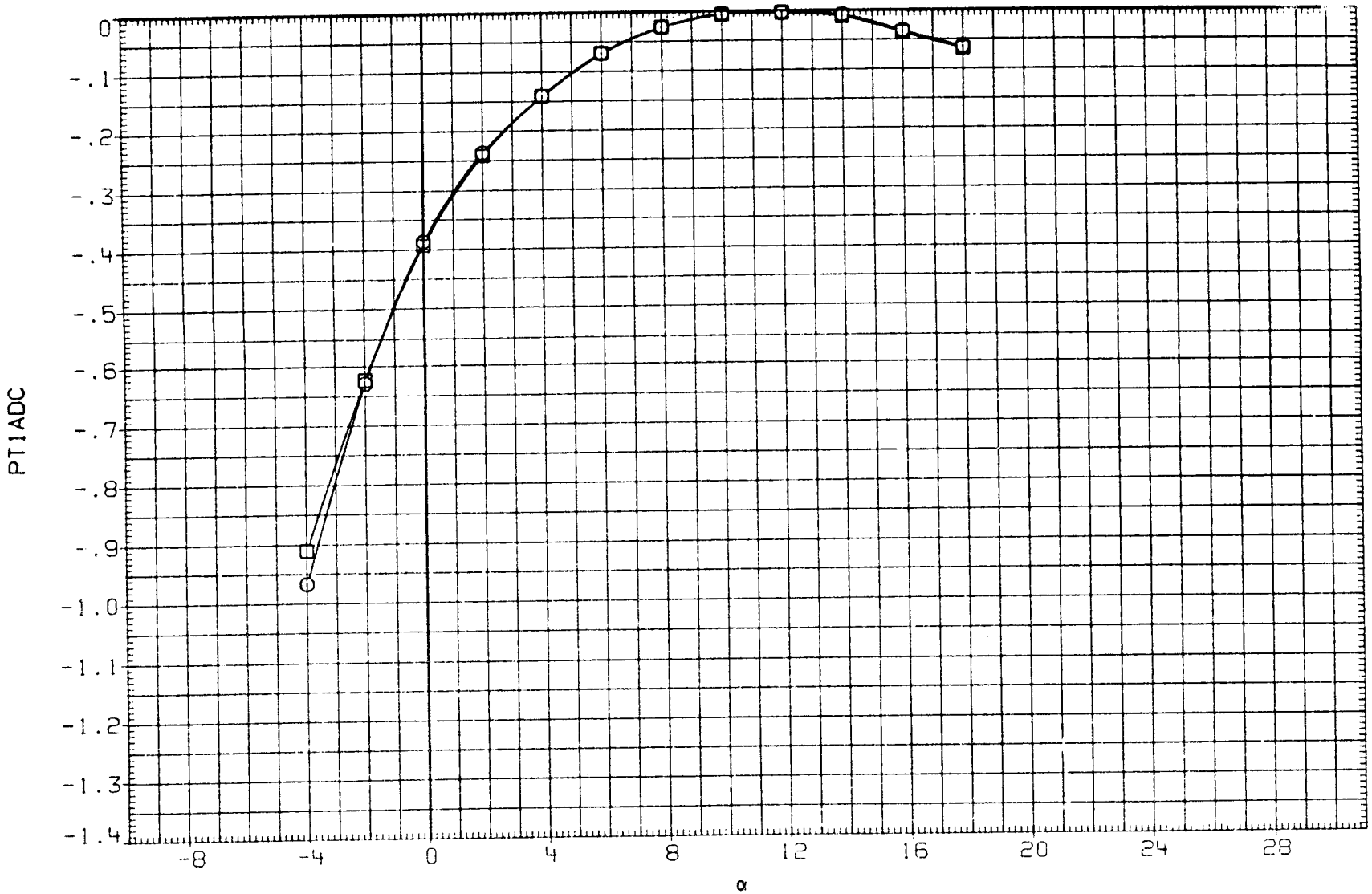


FIG. 62 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
AVERAGED (L + R) / 2

(B)MACH = .25 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA04	○	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA06	□	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

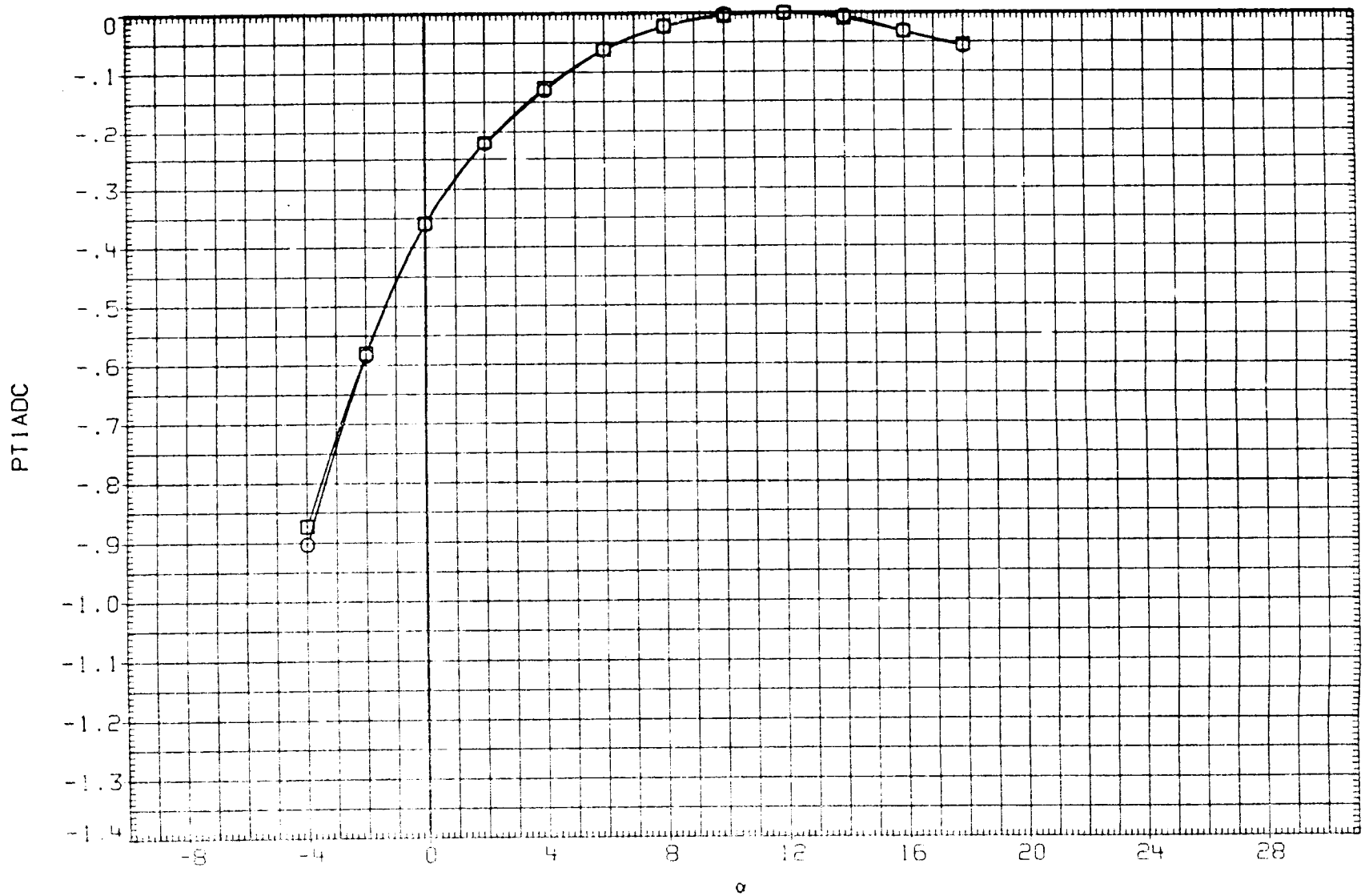


FIG. 62 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
AVERAGED (L + R) / 2

(C) MACH = .40 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA04	○	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA06	□	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

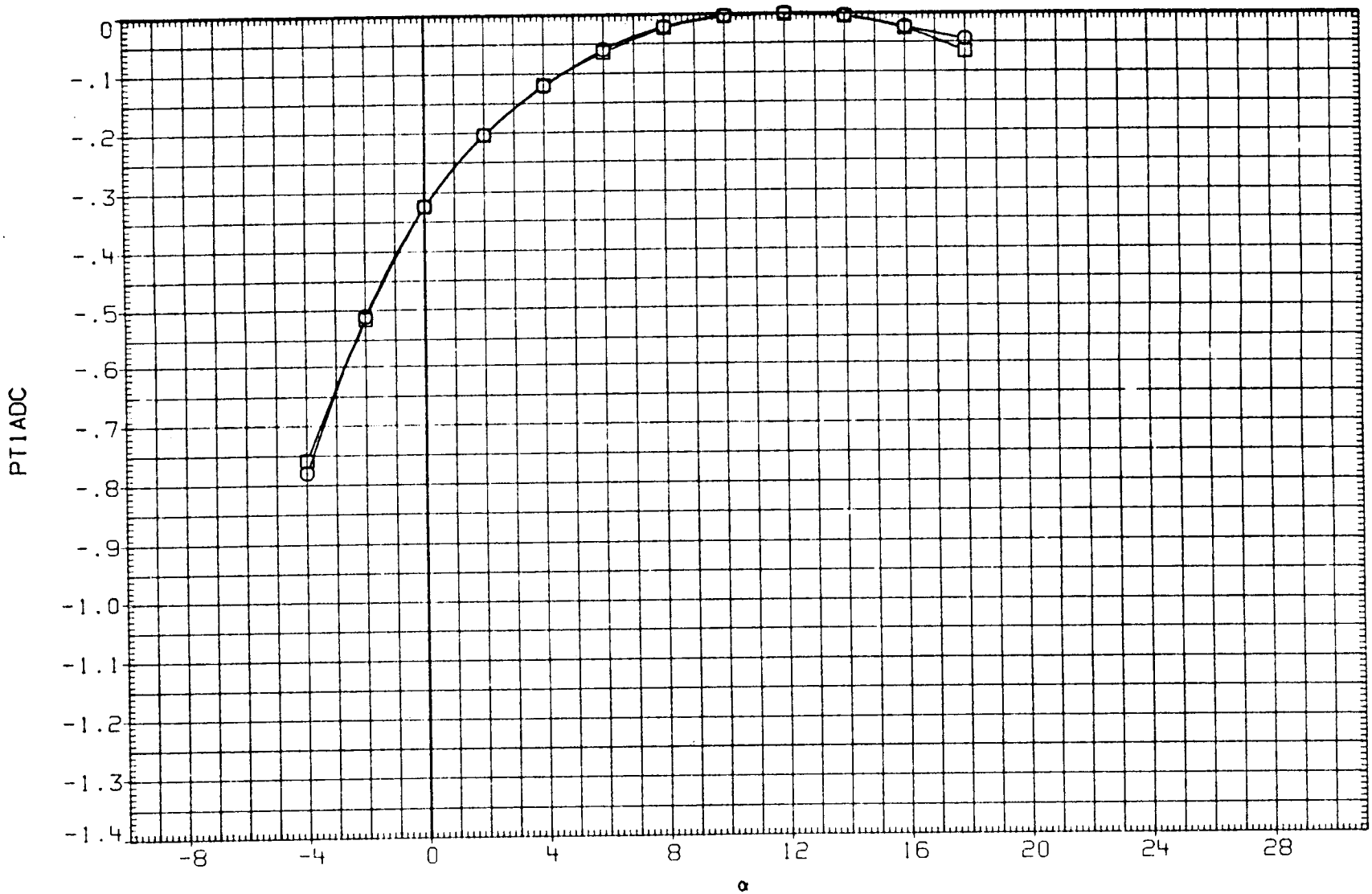


FIG. 62 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
AVERAGED (L + R) / 2

(D)MACH = .60

DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA04	○	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA06	□	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

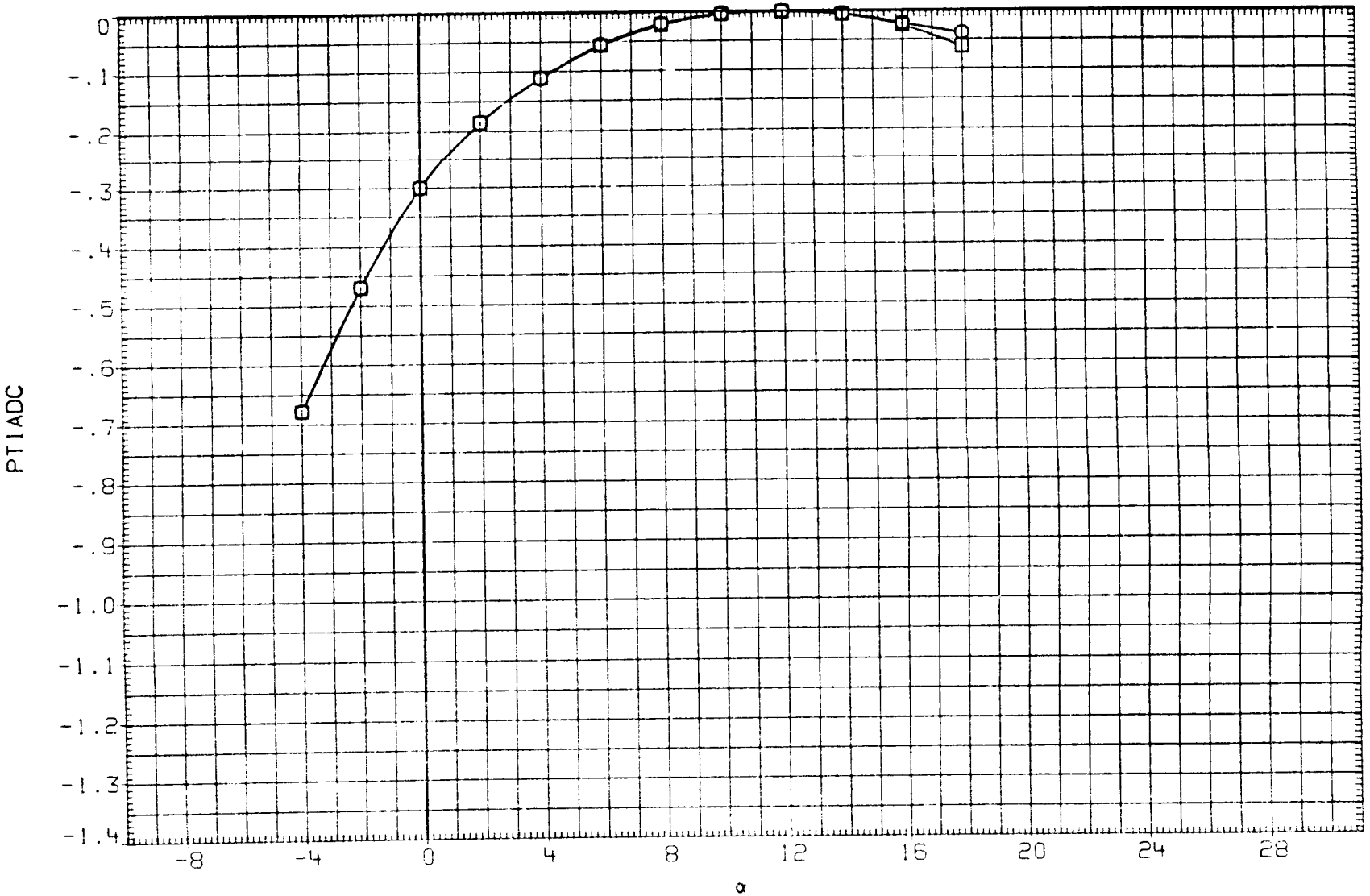


FIG. 62 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
AVERAGED (L + R) / 2

(E)MACH = .70

DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA04	○	0A232 FN.15 A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA06	□	0A232 FN.15 A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

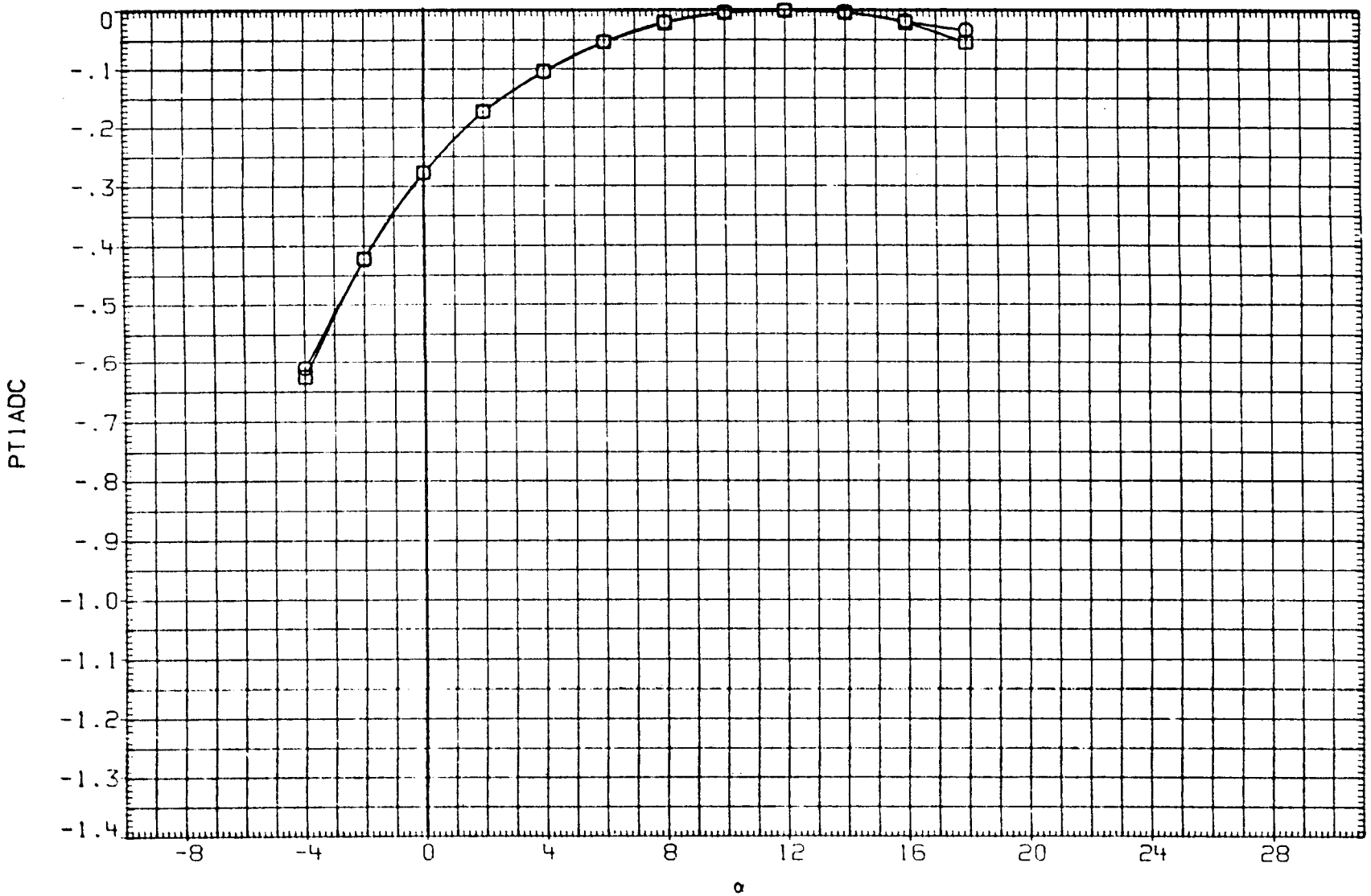


FIG. 62 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
AVERAGED (L + R) / 2

(F)MACH = .80 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA04	○	0A232 FN.15 A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA06	□	0A232 FN.15 A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

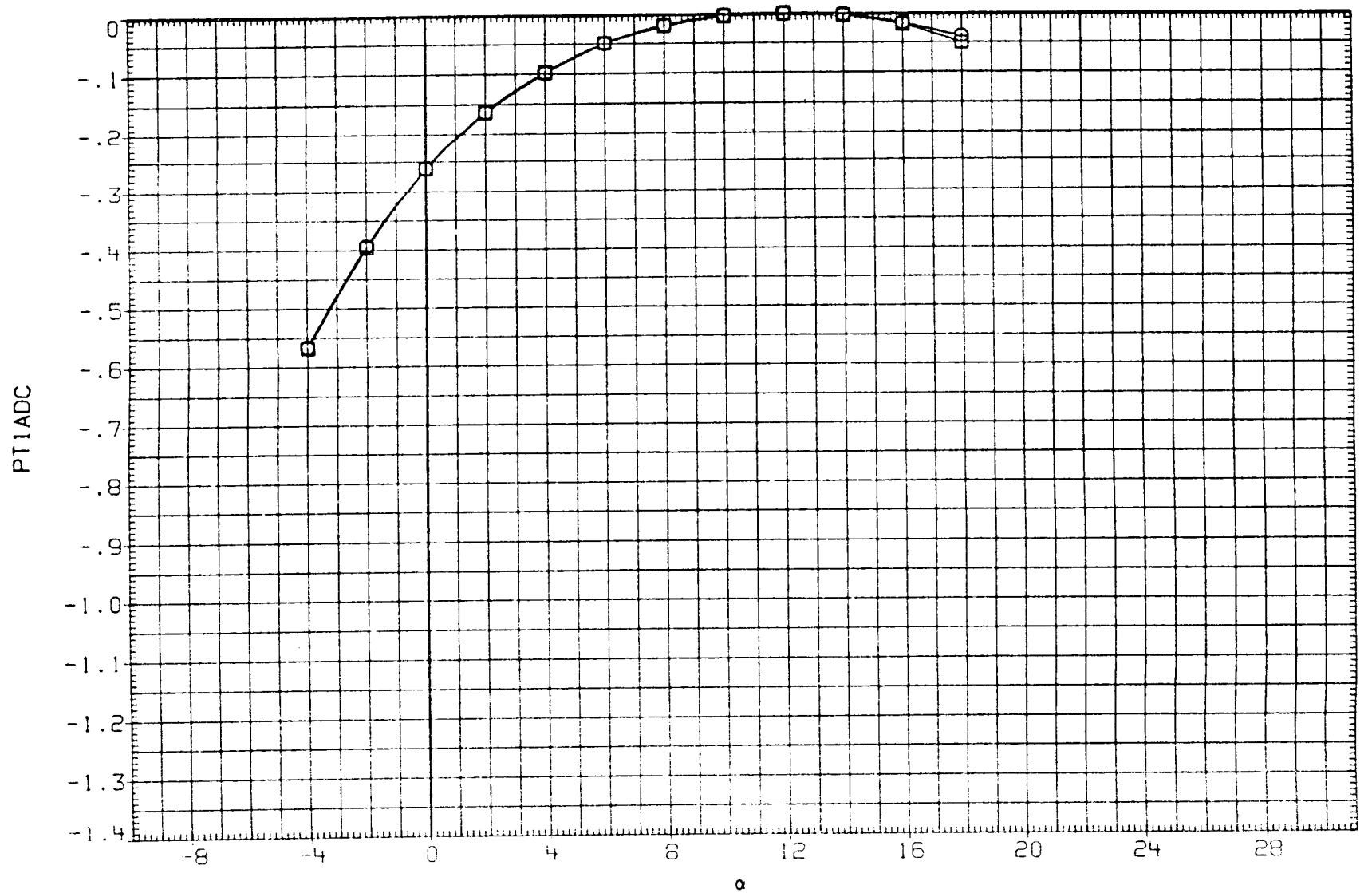


FIG. 62 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
AVERAGED (L + R) / 2

(G)MACH = .85 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA04	○	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA06	□	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

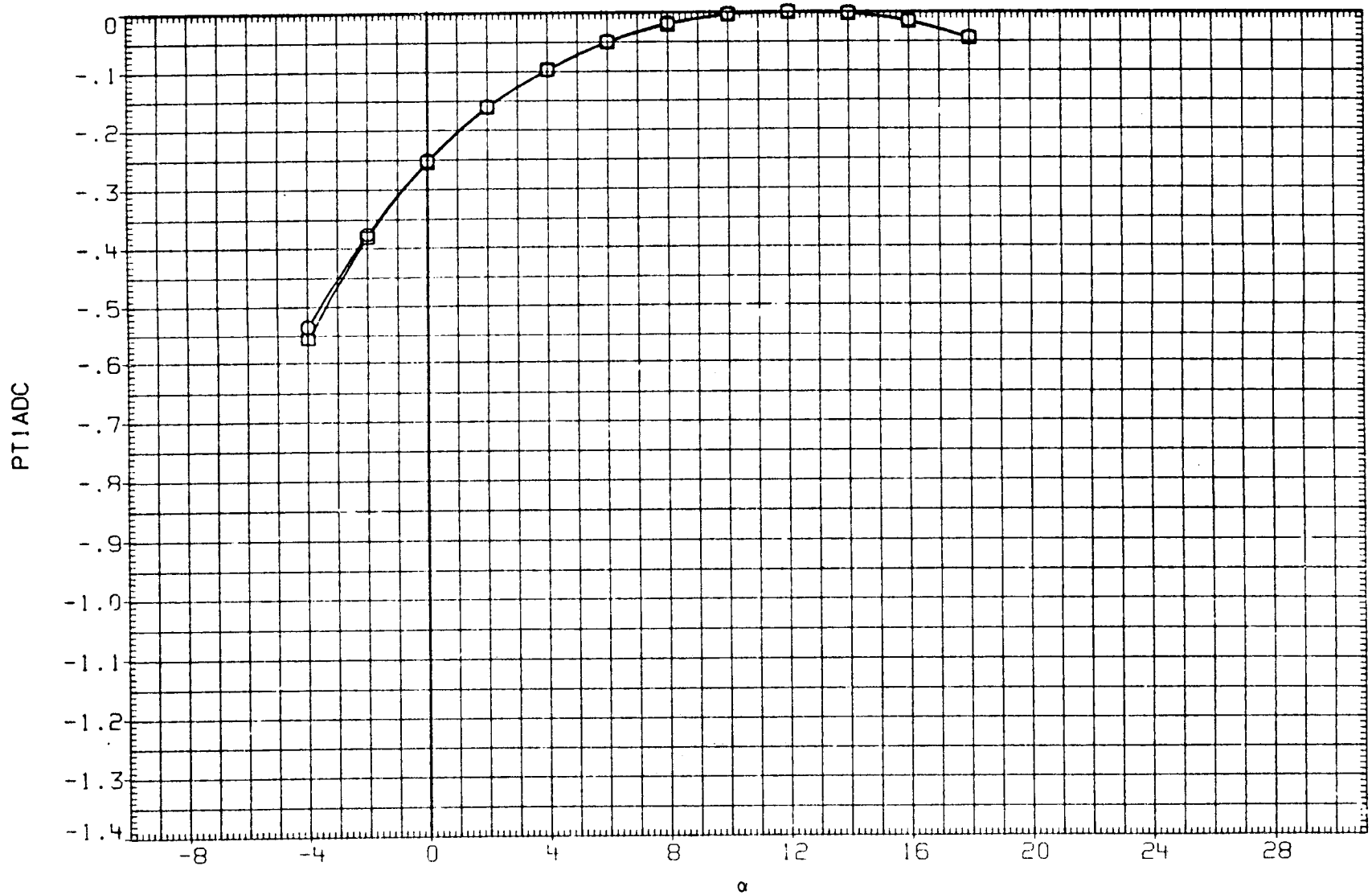


FIG. 62 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
AVERAGED (L + R) / 2

(H)MACH = .90 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA04	○	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA06	□	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

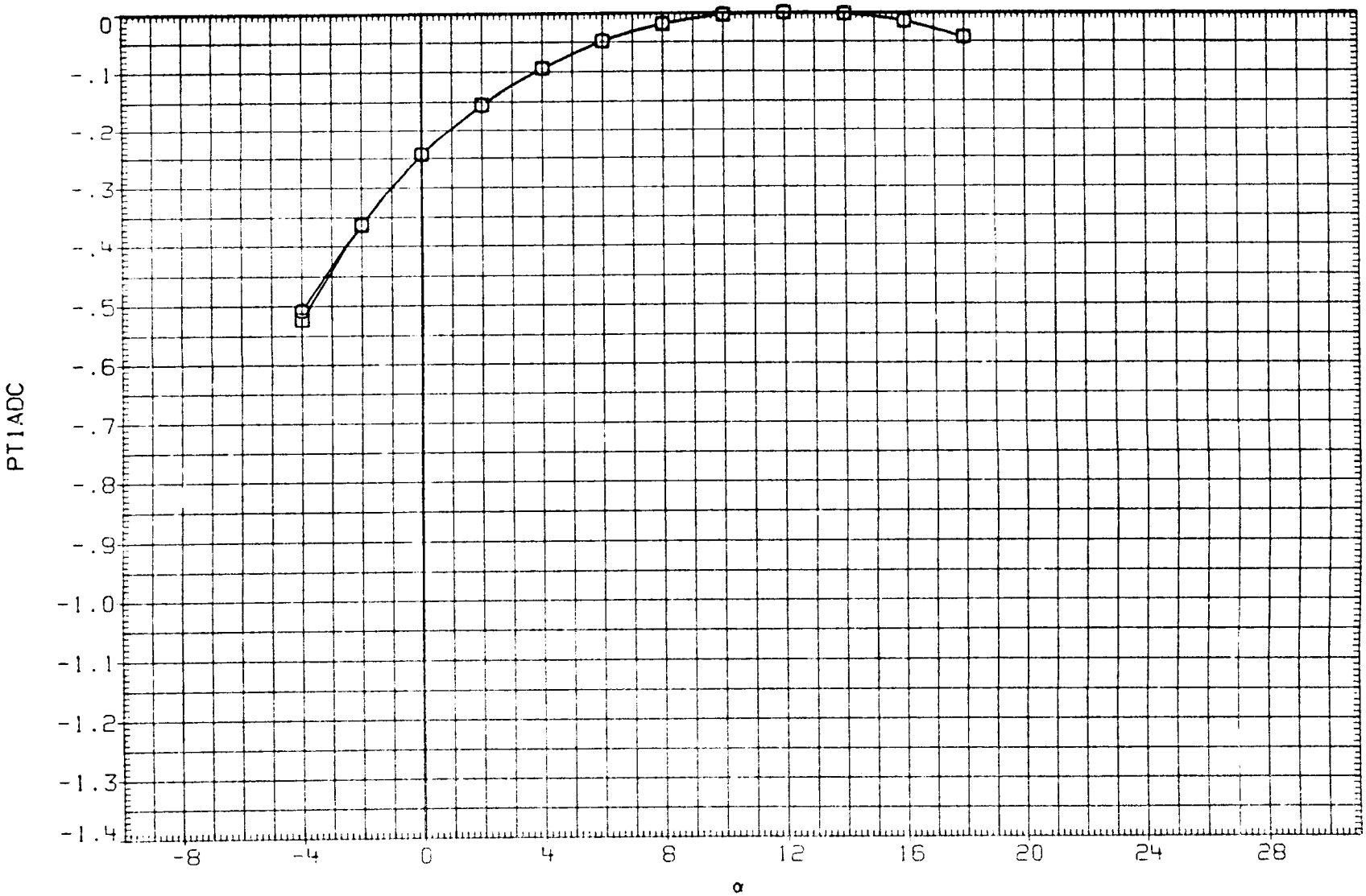


FIG. 62 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
AVERAGED (L + R) / 2

(I)MACH = .95 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA04	○	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA06	□	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

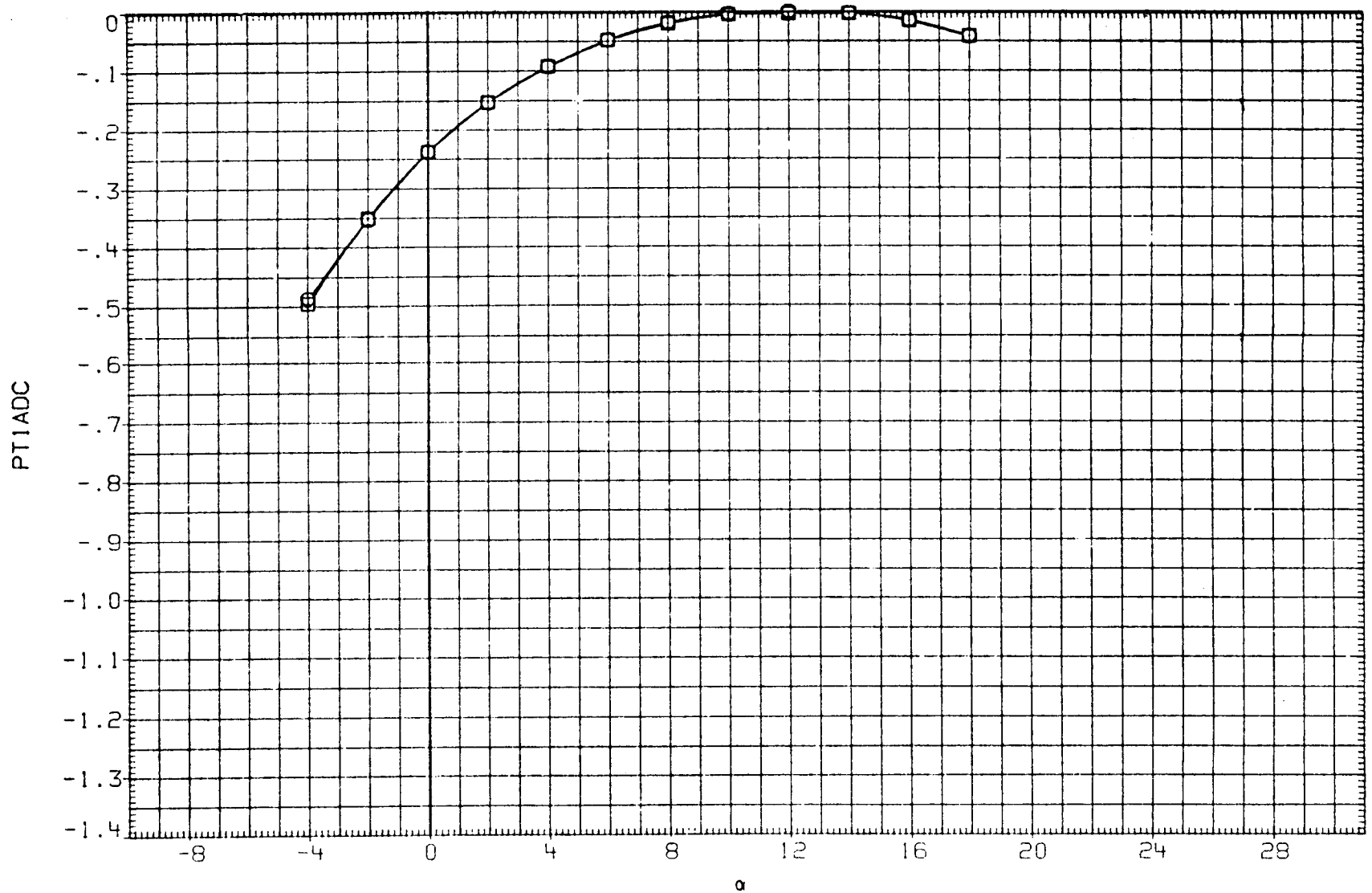


FIG. 62 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
AVERAGED (L + R) / 2

(J)MACH = .98 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA04	○	0A232 FN.IS A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA06	□	0A232 FN.IS A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

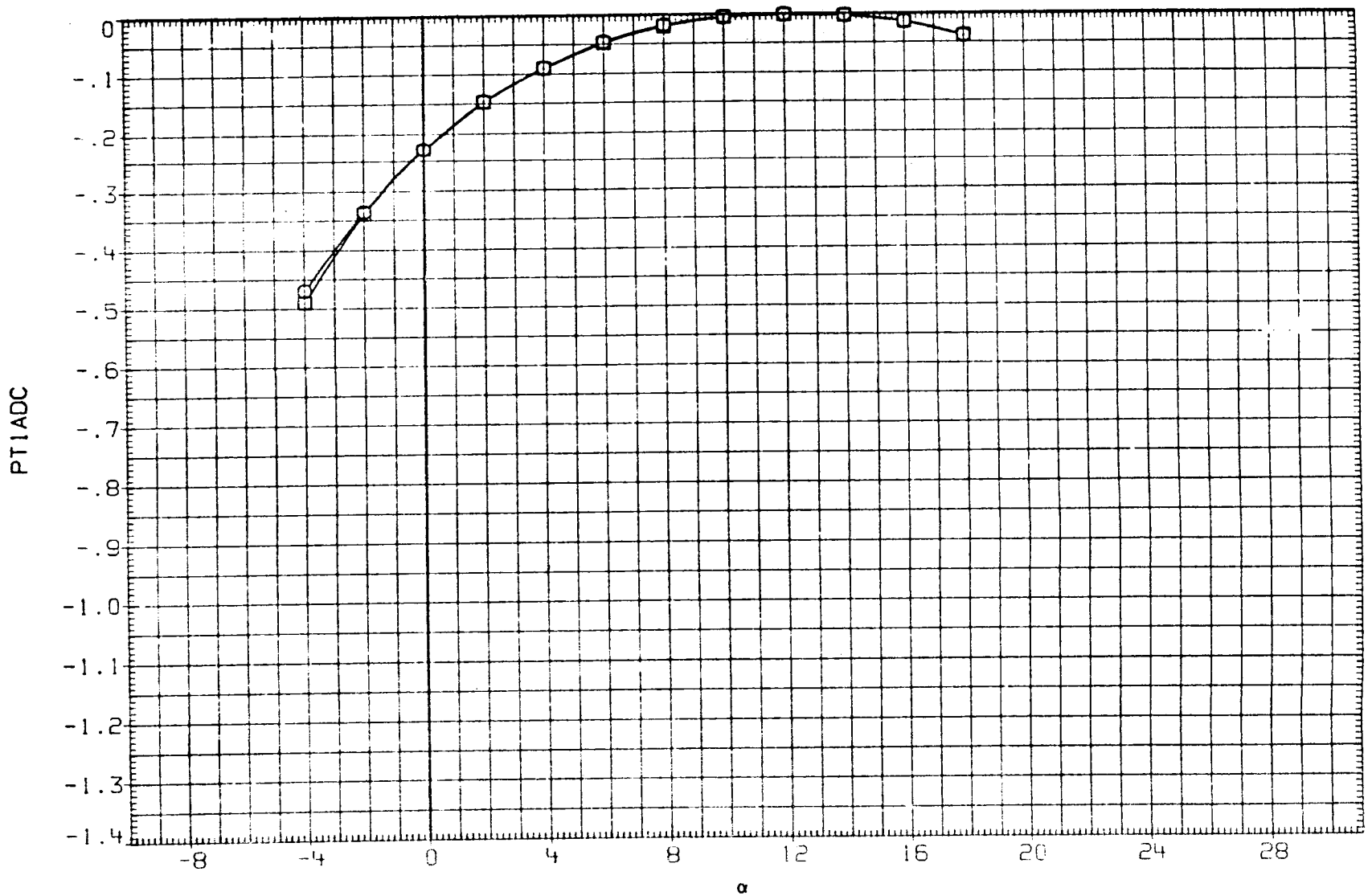


FIG. 62 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
AVERAGED (L + R) / 2

(K)MACH = 1.05 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA04	○	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA06	□	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

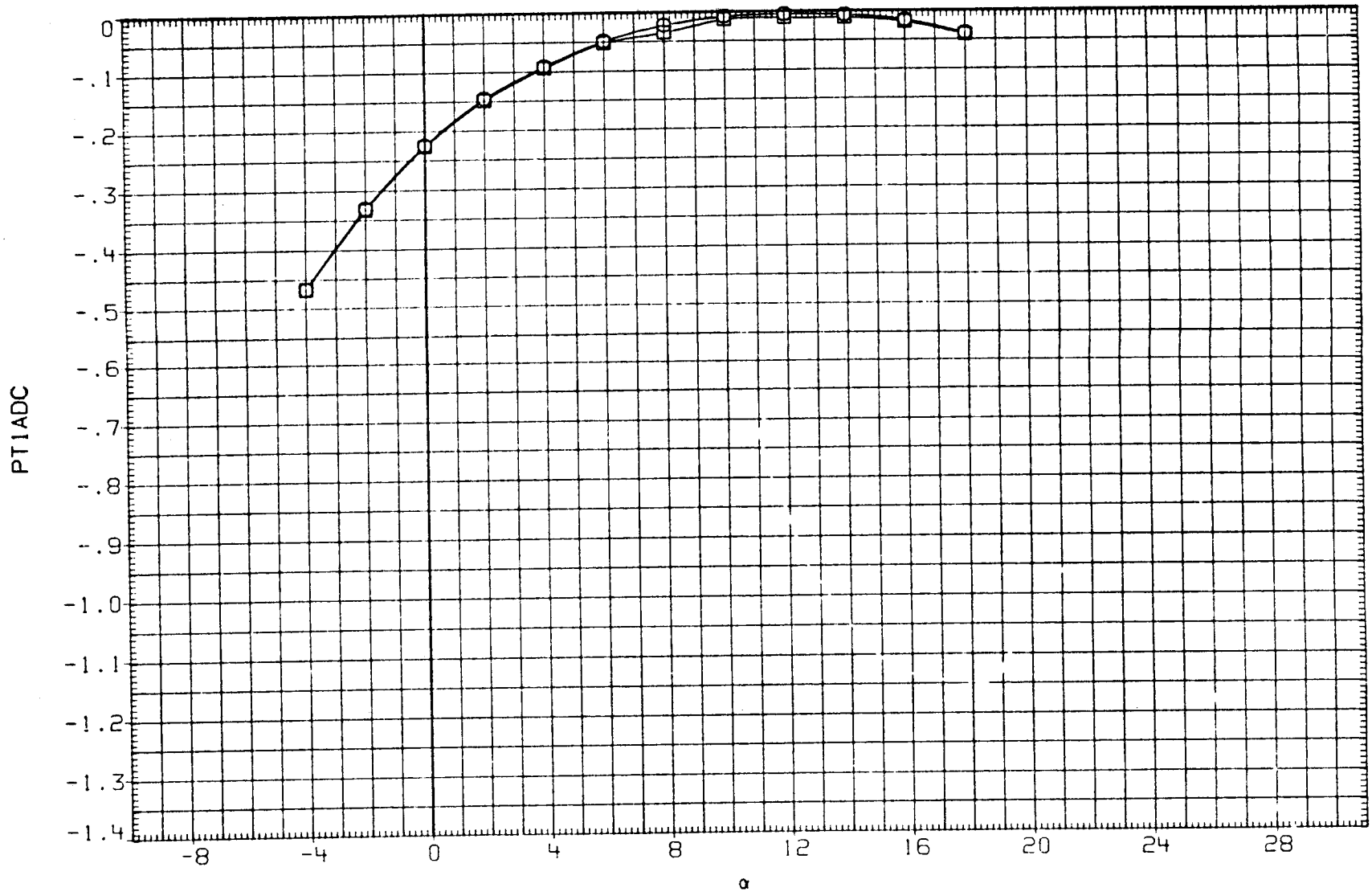


FIG. 62 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
AVERAGED (L + R) / 2

(L)MACH = 1.10

DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA04	○	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA06	□	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

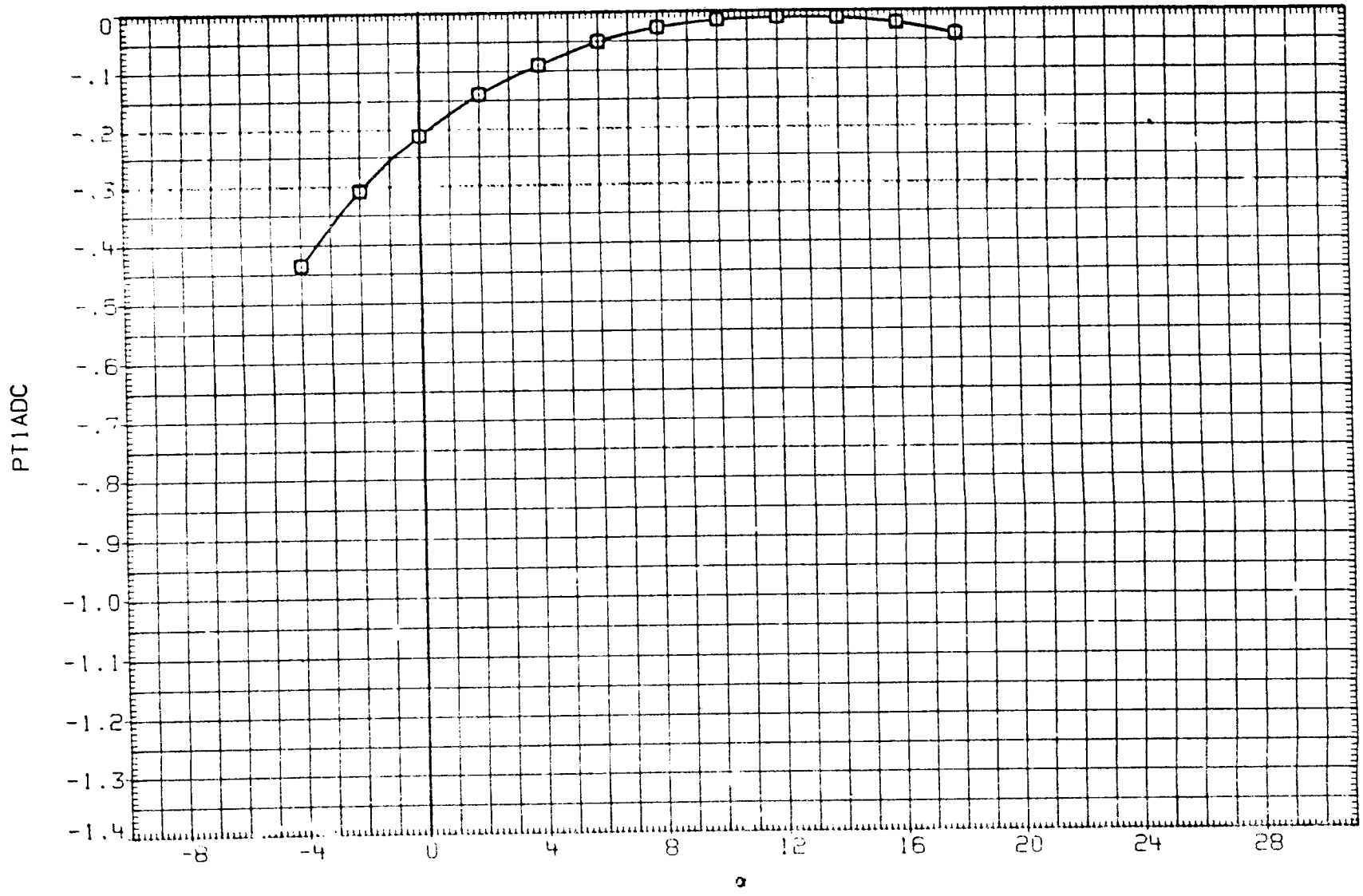


FIG. 62 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
AVERAGED (L + R) / 2

(M)MACH = 1.15

DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA04	○	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA06	□	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

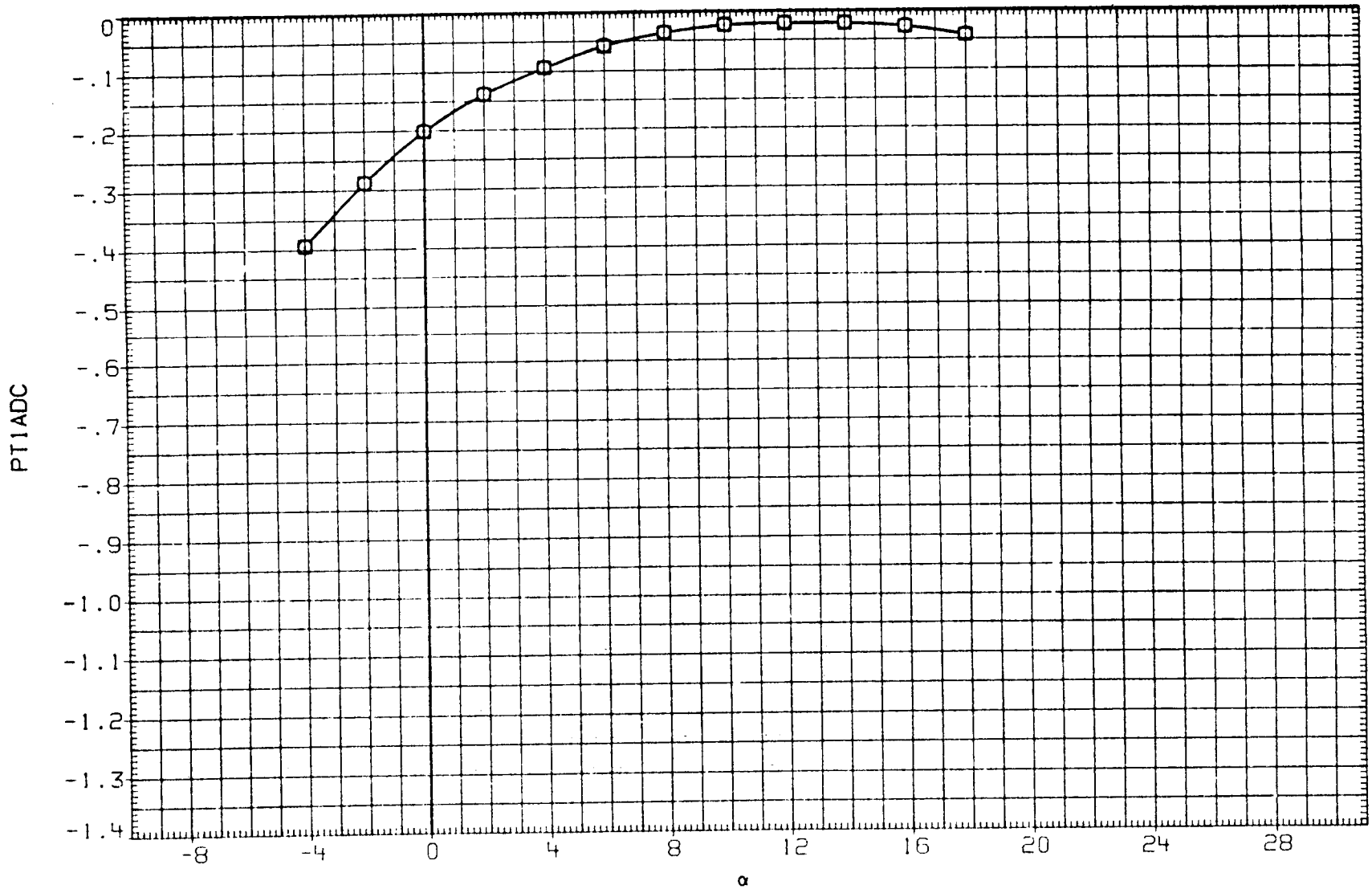


FIG. 62 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
AVERAGED (L + R) / 2

(N)MACH = 1.20 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA04	○	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA06	□	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

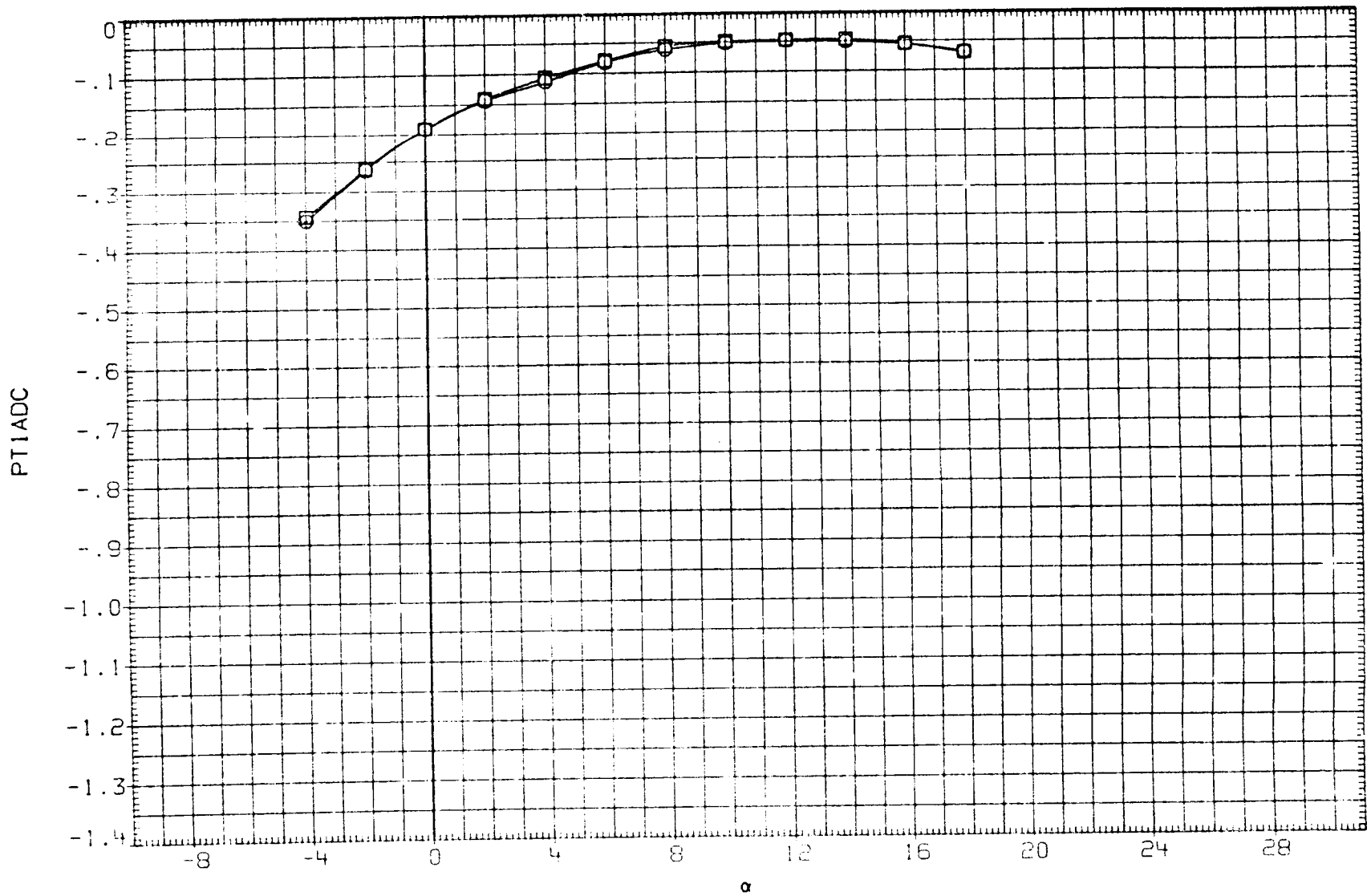


FIG. 62 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
AVERAGED (L + R) / 2

(O) MACH = 1.30

DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA04	○	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA06	□	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

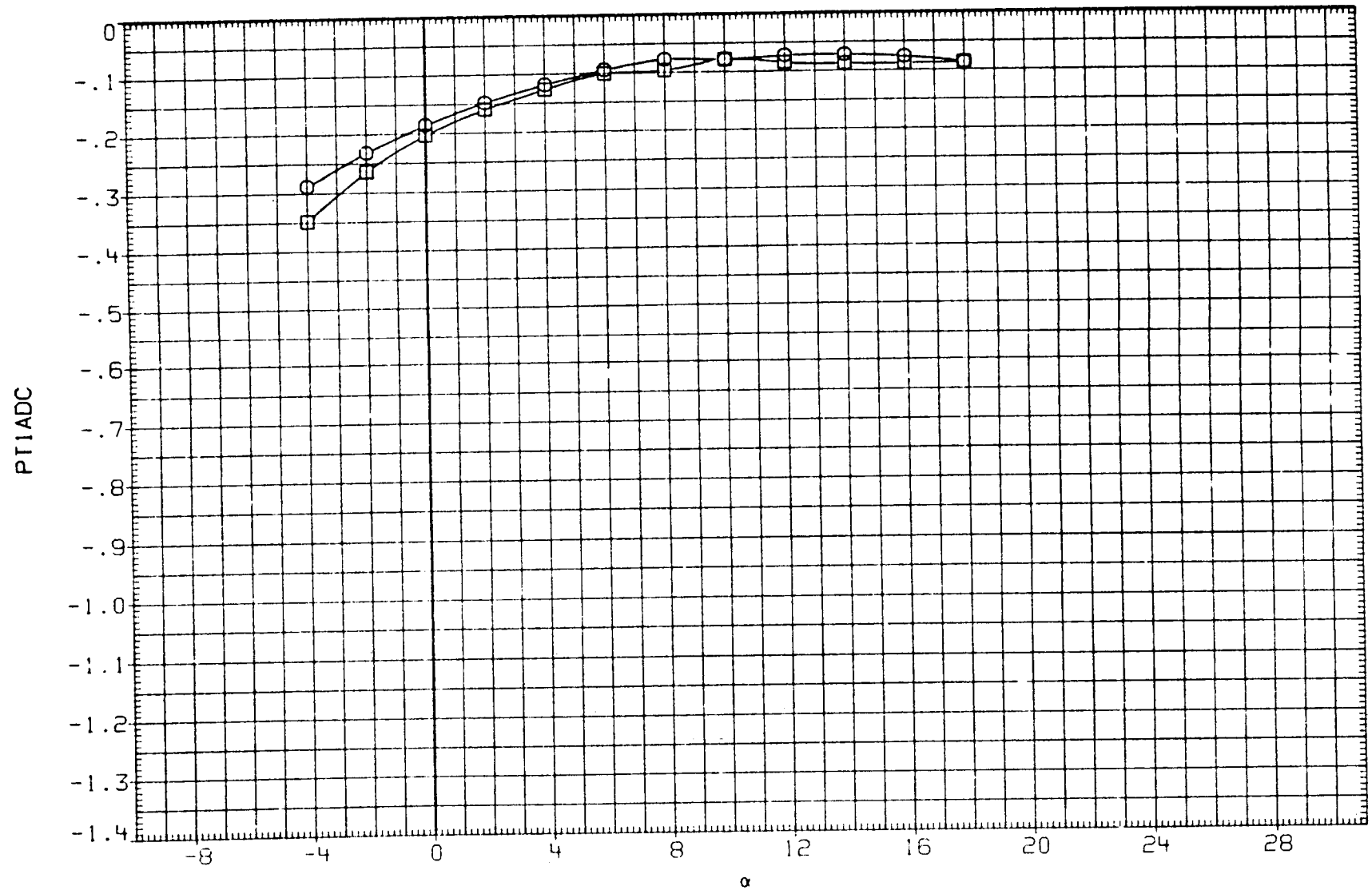


FIG. 62 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
AVERAGED (L + R) / 2

(P)MACH = 1.40 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA04	○	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA06	□	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

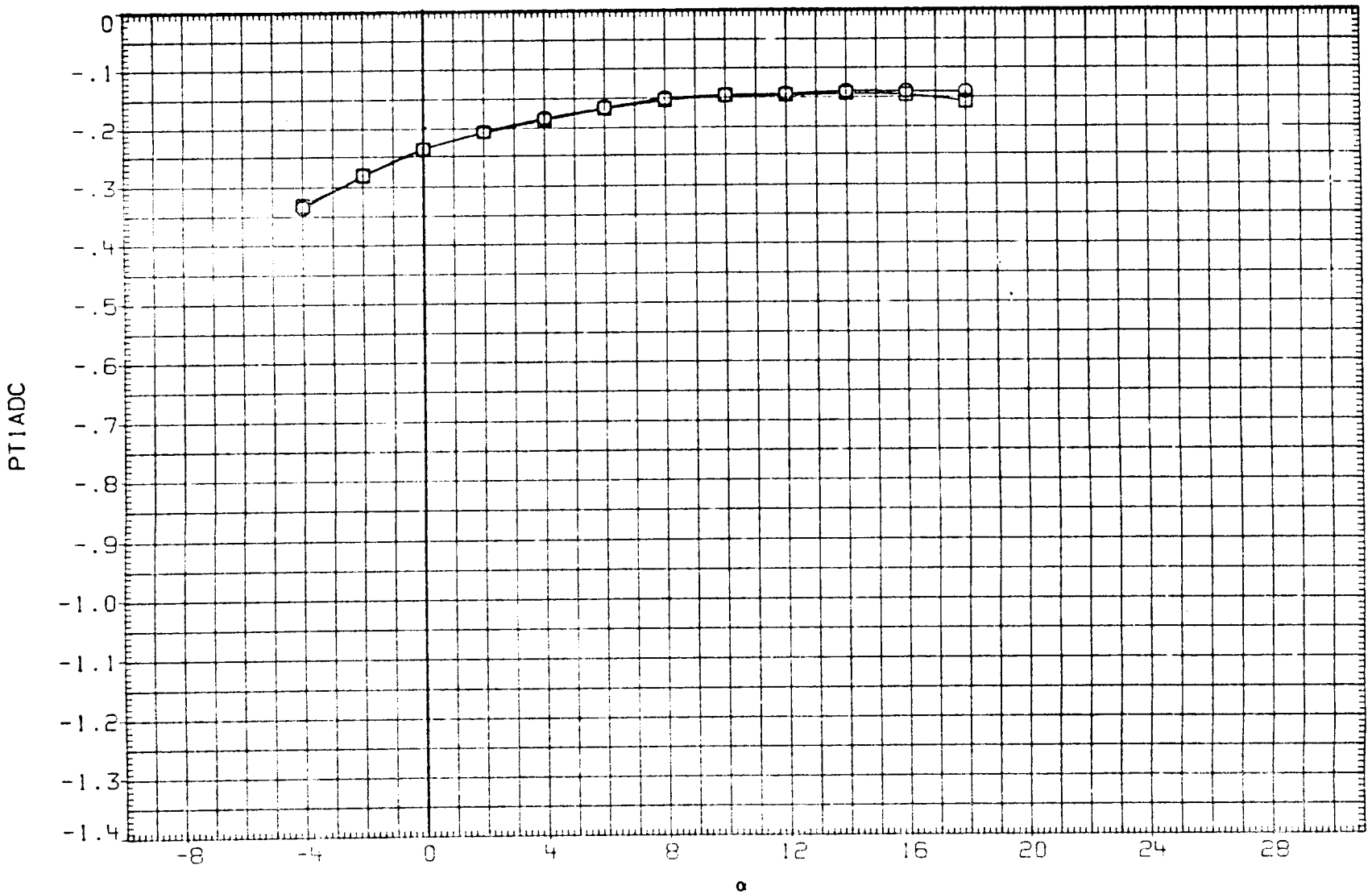


FIG. 62 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS ALPHA
AVERAGED (L + R) / 2

(Q)MACH = 1.55 DATE 10 AUG 78

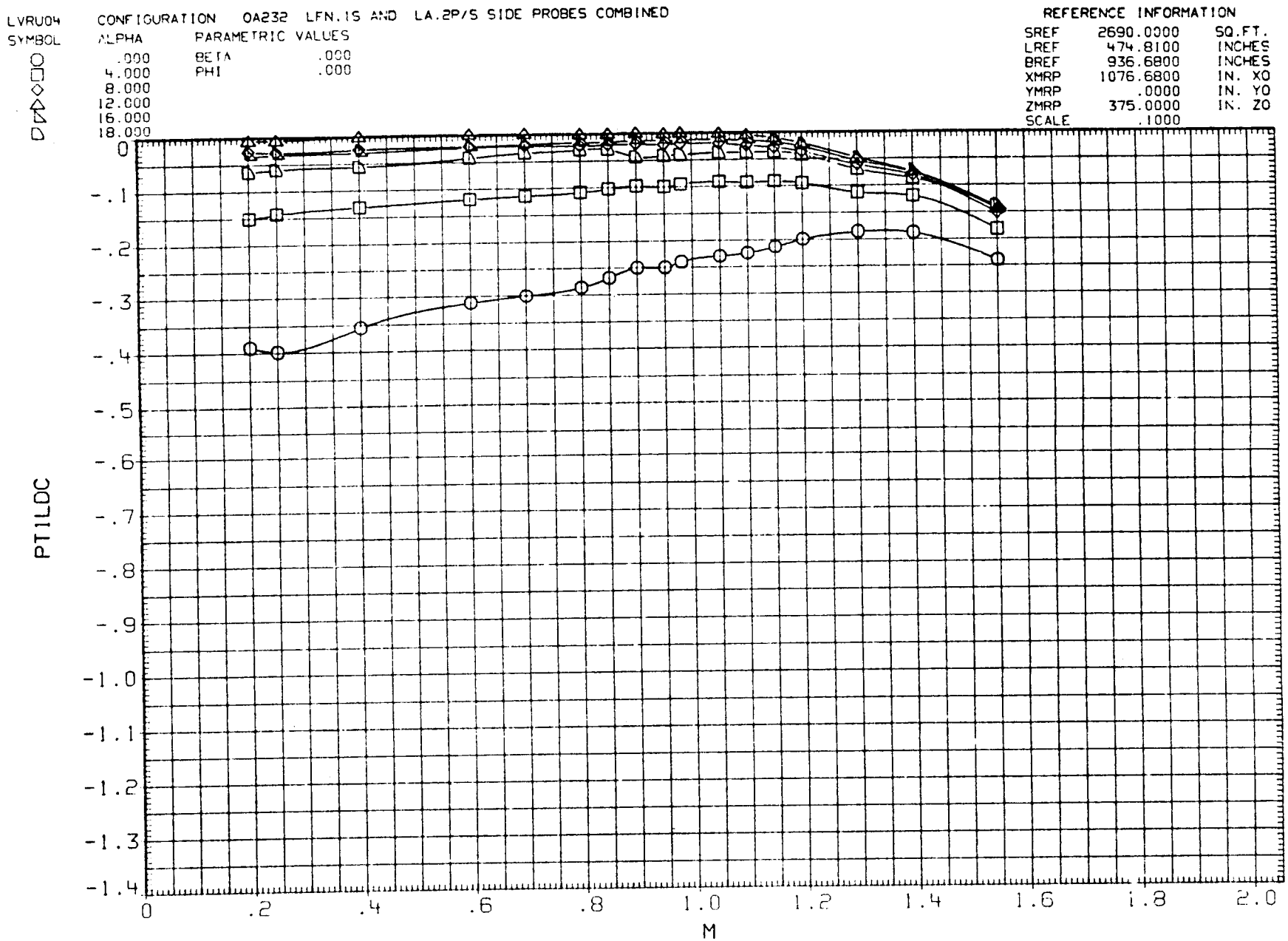


FIG. 63 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS MACH NUMBER
LEFT SIDE BETA = 0

DATE 10 AUG 78

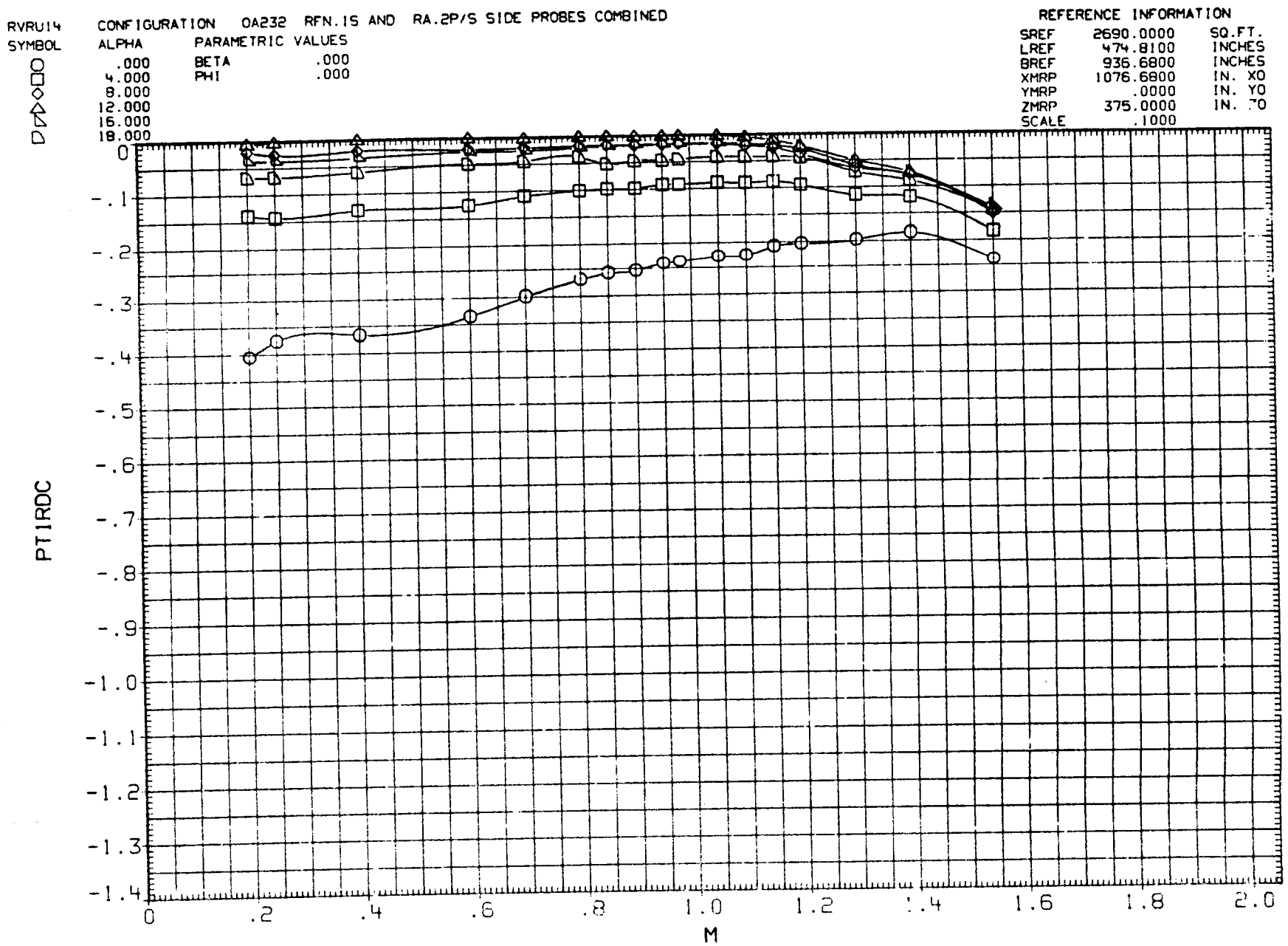


FIG. 64 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS MACH NUMBER
RIGHT SIDE BETA = 0
DATE 10 AUG 78

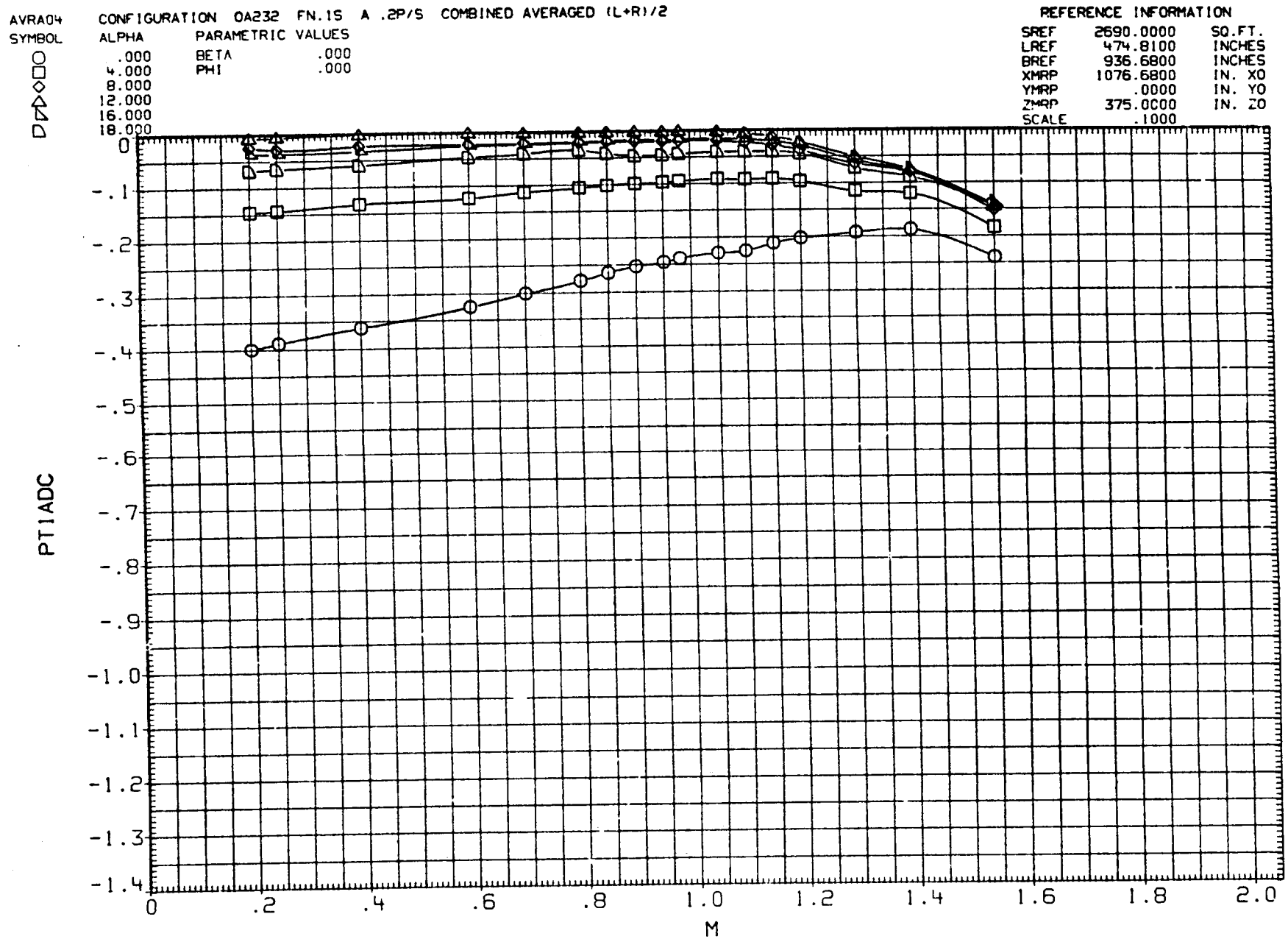


FIG. 65 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS MACH NUMBER
AVERAGED (L + R) / 2 BETA = 0
DATE 10 AUG 78

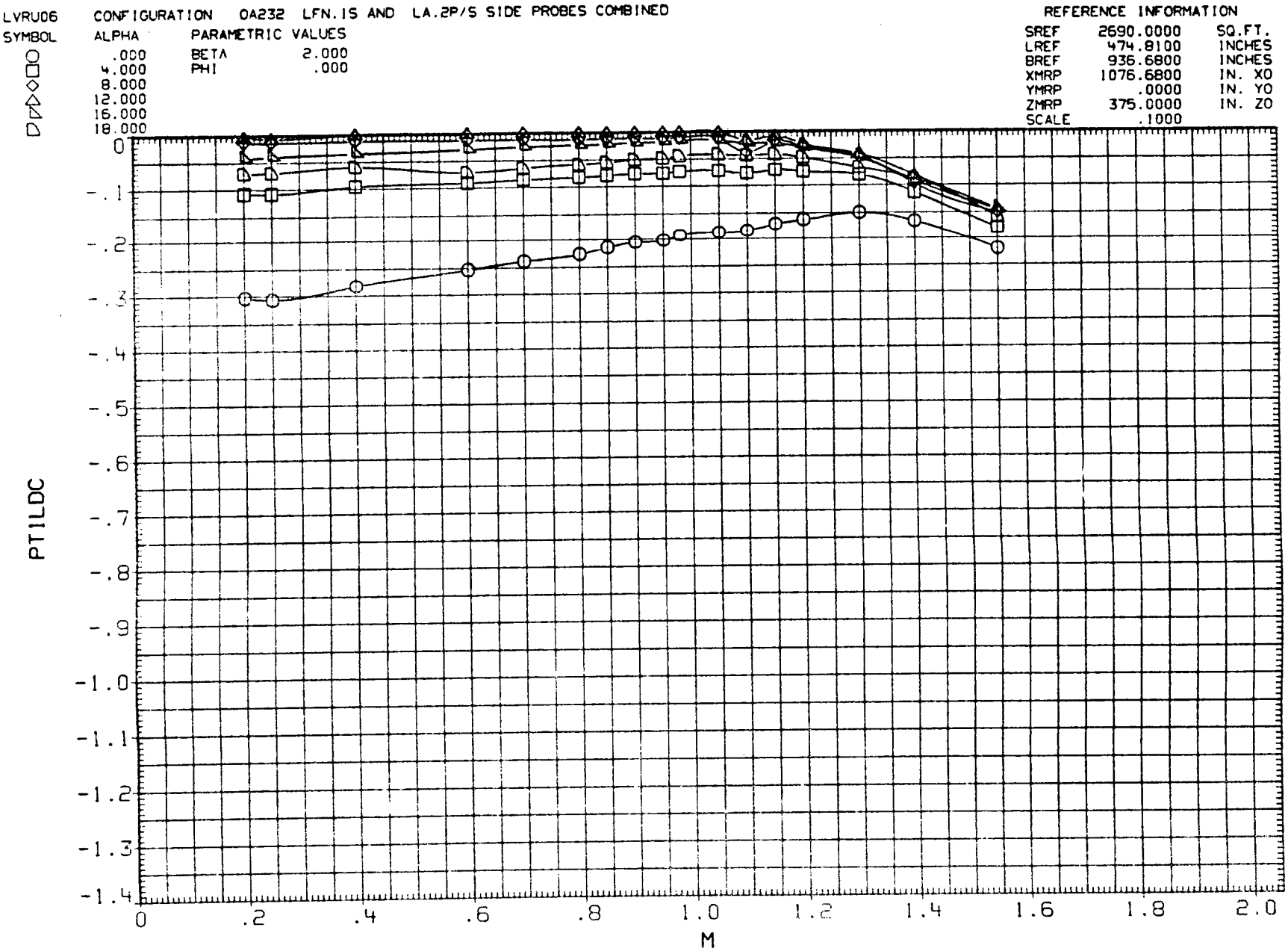


FIG. 66 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS MACH NUMBER
LEFT SIDE BETA = 2
DATE 10 AUG 78

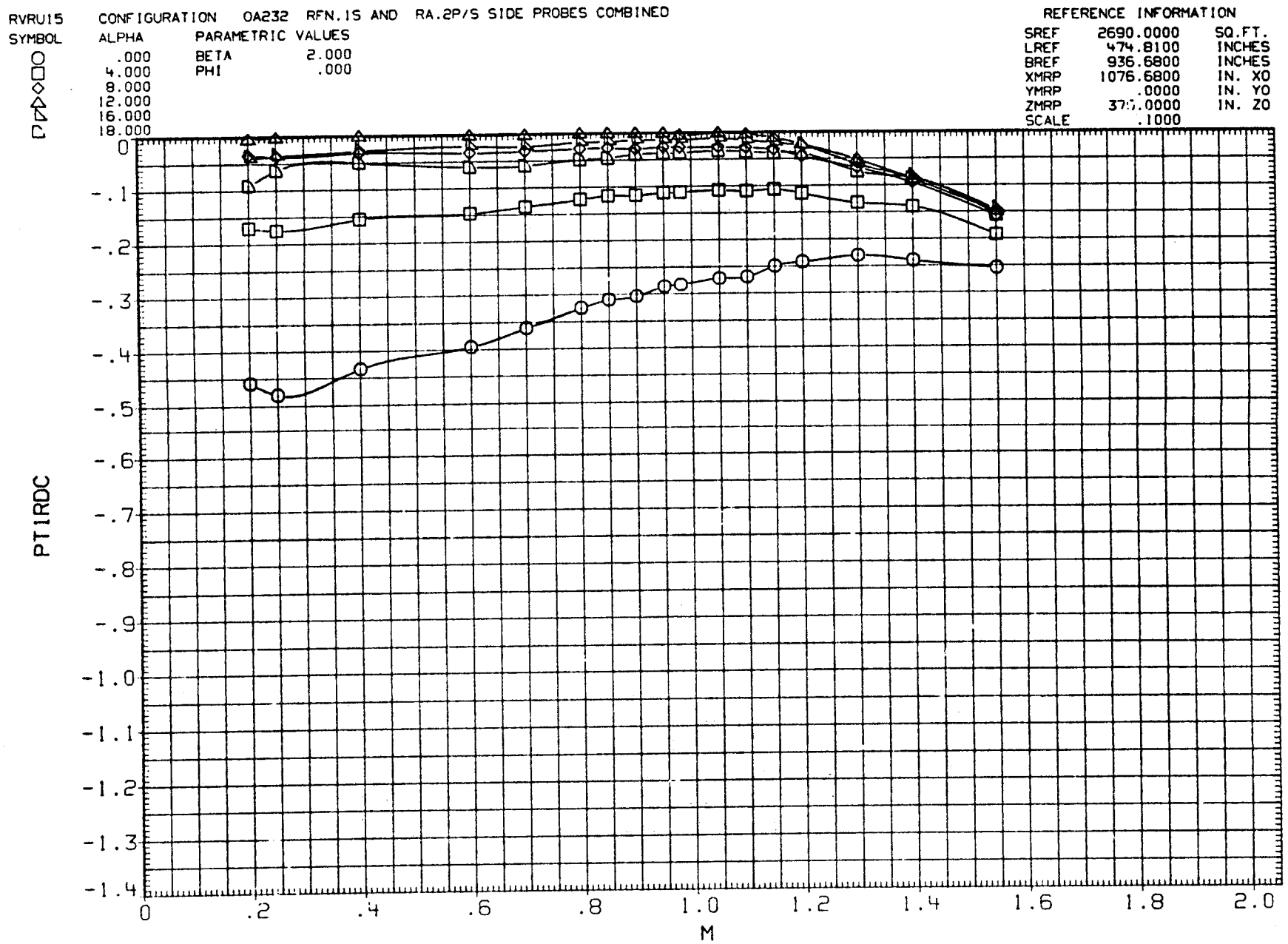


FIG. 67 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS MACH NUMBER
RIGHT SIDE BETA = 2
DATE 10 AUG 78

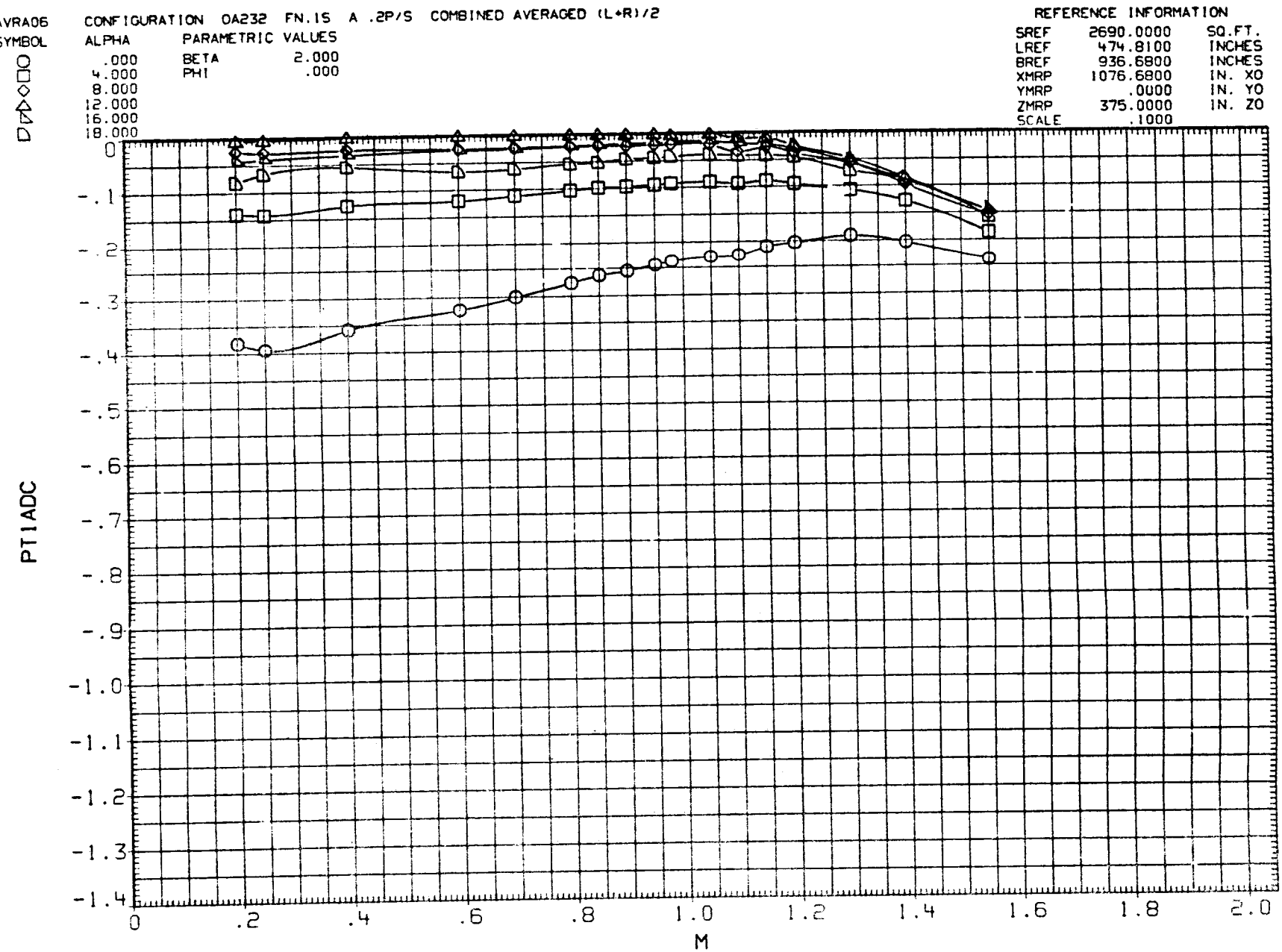


FIG. 68 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS MACH NUMBER
AVERAGED (L + R) / 2 BETA = 2
DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
RVRU15	○	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	2.000	.000
LVRU04	□	0A232 LFN.1S AND LA.2P/S SIDE PROBES COMBINED	.000	.000
RVRU14	◇	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	.000	.000
LVRU06	△	0A232 LFN.1S AND LA.2P/S SIDE PROBES COMBINED	2.000	.000

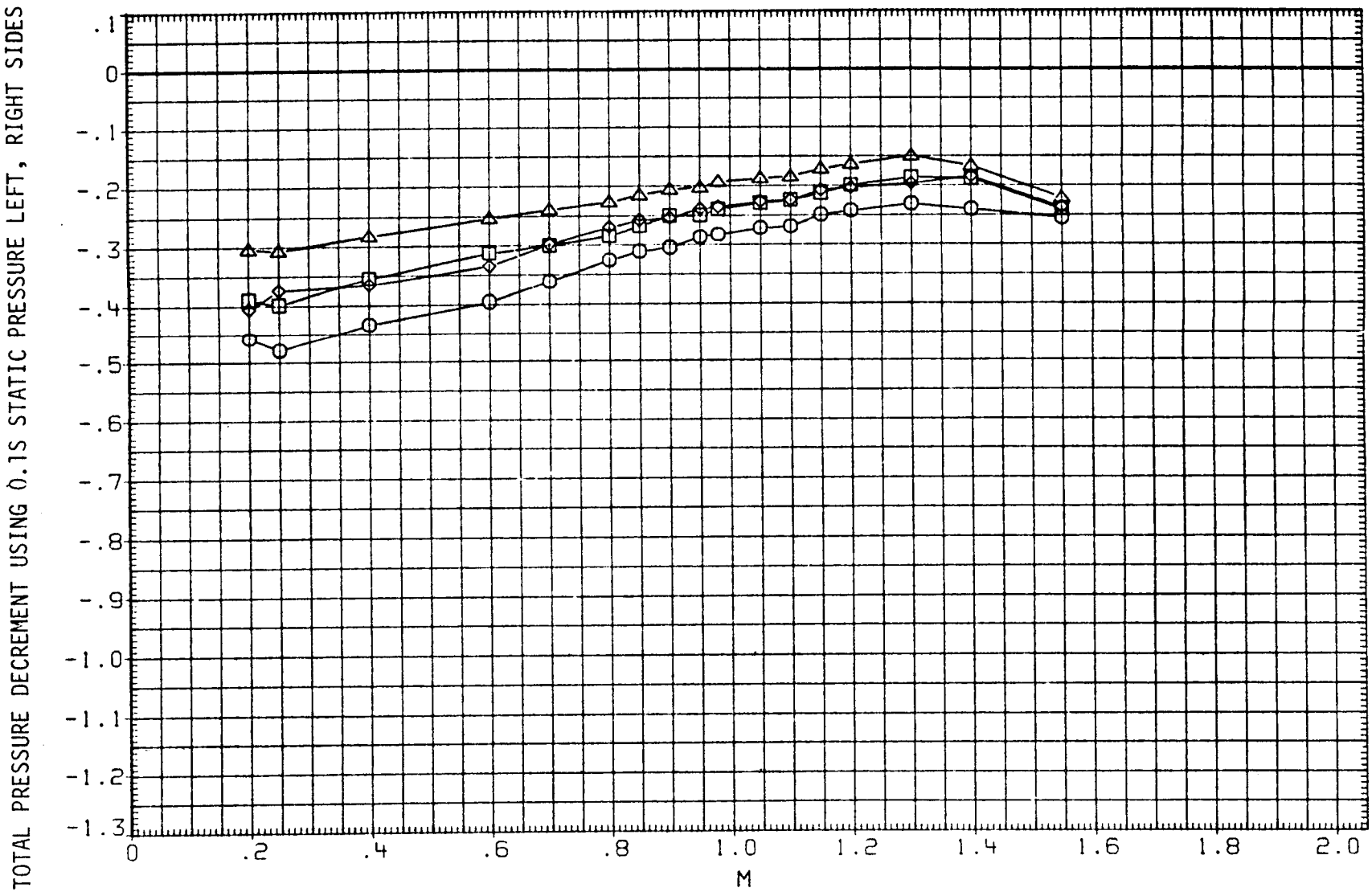


FIG. 69 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS MACH NUMBER
LEFT AND RIGHT SIDES COMPARED

(A) ALPHA = .00

DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION			BETA	PHI
RVRU15	○	0A232	RFN.IS AND	RA.2P/S SIDE PROBES COMBINED	2.000	.000
LVRU04	□	0A232	LFN.IS AND	LA.2P/S SIDE PROBES COMBINED	.000	.000
RVRU14	◇	0A232	RFN.IS AND	RA.2P/S SIDE PROBES COMBINED	.000	.000
LVRU06	△	0A232	LFN.IS AND	LA.2P/S SIDE PROBES COMBINED	2.000	.000

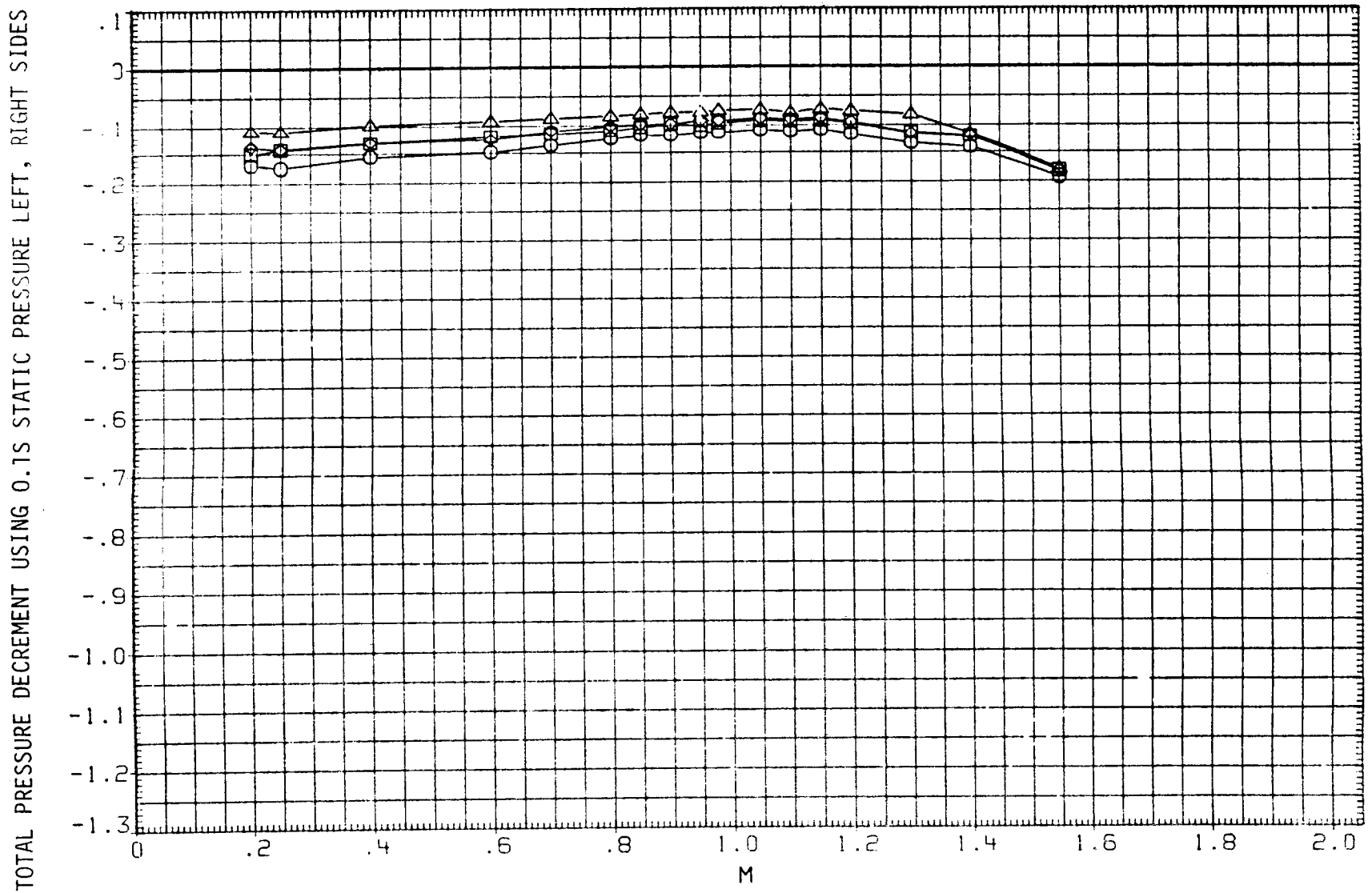


FIG. 69 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS MACH NUMBER
LEFT AND RIGHT SIDES COMPARED

(B) ALPHA = 4.00

DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
RVRU15	○	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	2.000	.000
LVRU04	◇□	0A232 LFN.1S AND LA.2P/S SIDE PROBES COMBINED	.000	.000
RVRU14	◇	0A232 RFN.1S AND RA.2P/S SIDE PROBES COMBINED	.000	.000
LVRU06	△	0A232 LFN.1S AND LA.2P/S SIDE PROBES COMBINED	2.000	.000

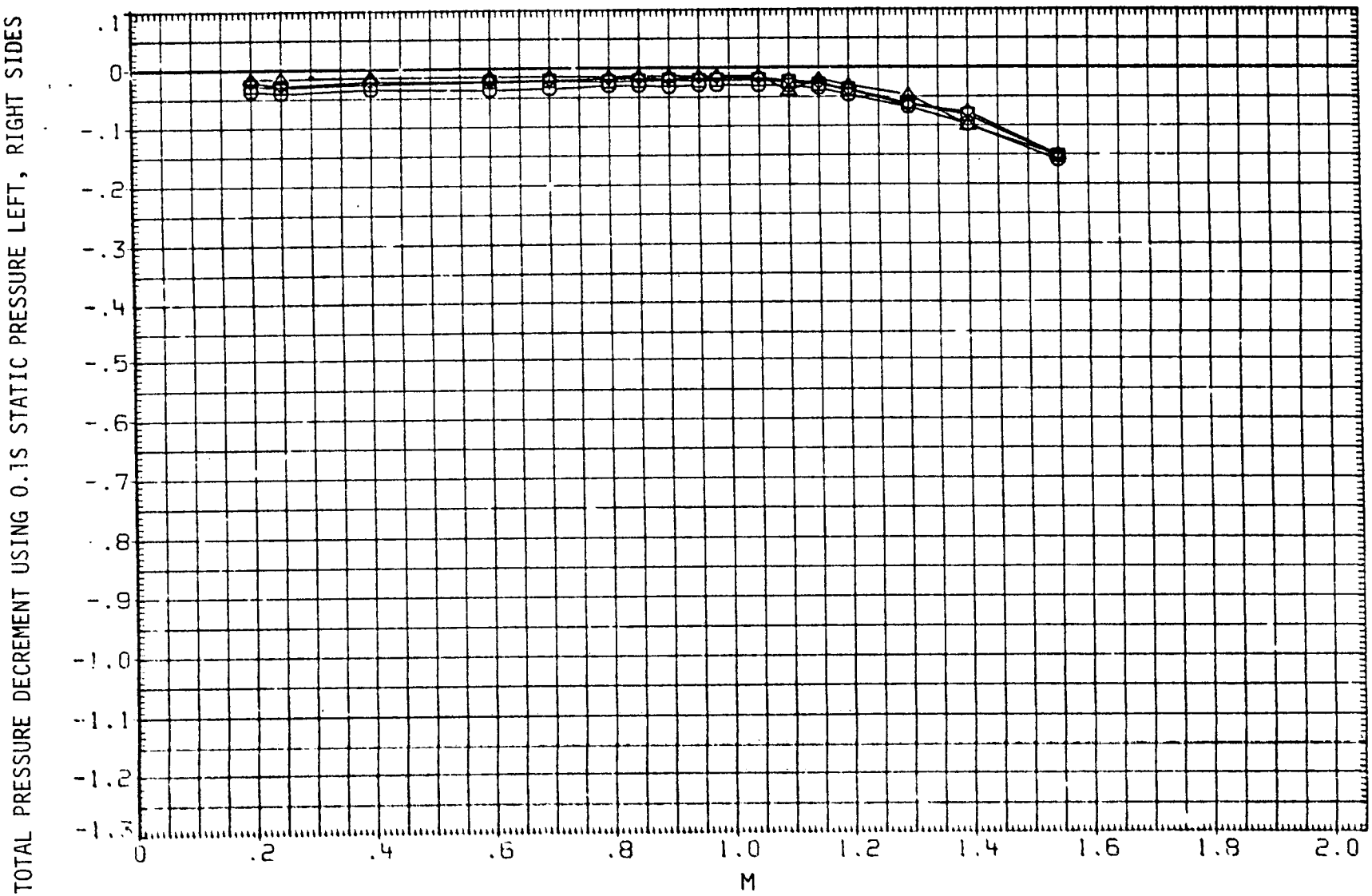


FIG. 69 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS MACH NUMBER
LEFT AND RIGHT SIDES COMPARED

(C)ALPHA = 8.00 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION			BETA	PHI
RVRU15	○	0A232	RFN.1S AND	RA.2P/S SIDE PROBES COMBINED	2.000	.000
LVRU04	□	0A232	LFN.1S AND	LA.2P/S SIDE PROBES COMBINED	.000	.000
RVRU14	◇	0A232	RFN.1S AND	RA.2P/S SIDE PROBES COMBINED	.000	.000
LVRU06	△	0A232	LFN.1S AND	LA.2P/S SIDE PROBES COMBINED	2.000	.000

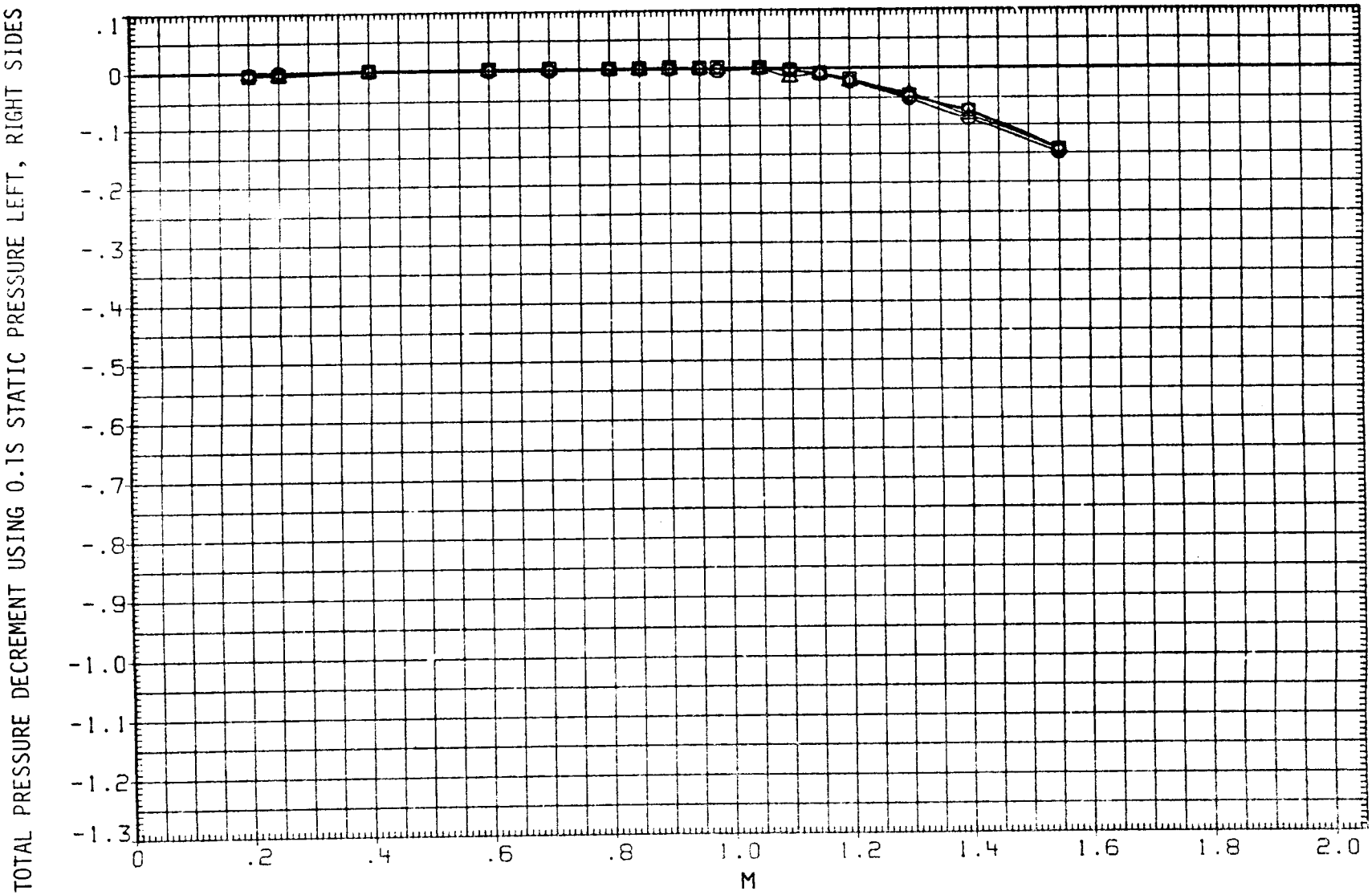


FIG. 69 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS MACH NUMBER
LEFT AND RIGHT SIDES COMPARED

(D) ALPHA = 12.00

DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION			BETA	PHI
RVRU15	○	0A232	RFN.1S AND	RA.2P/S SIDE PROBES COMBINED	2.000	.000
LVRU04	□	0A232	LFN.1S AND	LA.2P/S SIDE PROBES COMBINED	.000	.000
RVRU14	◇	0A232	RFN.1S AND	RA.2P/S SIDE PROBES COMBINED	.000	.000
LVRU06	△	0A232	LFN.1S AND	LA.2P/S SIDE PROBES COMBINED	2.000	.000

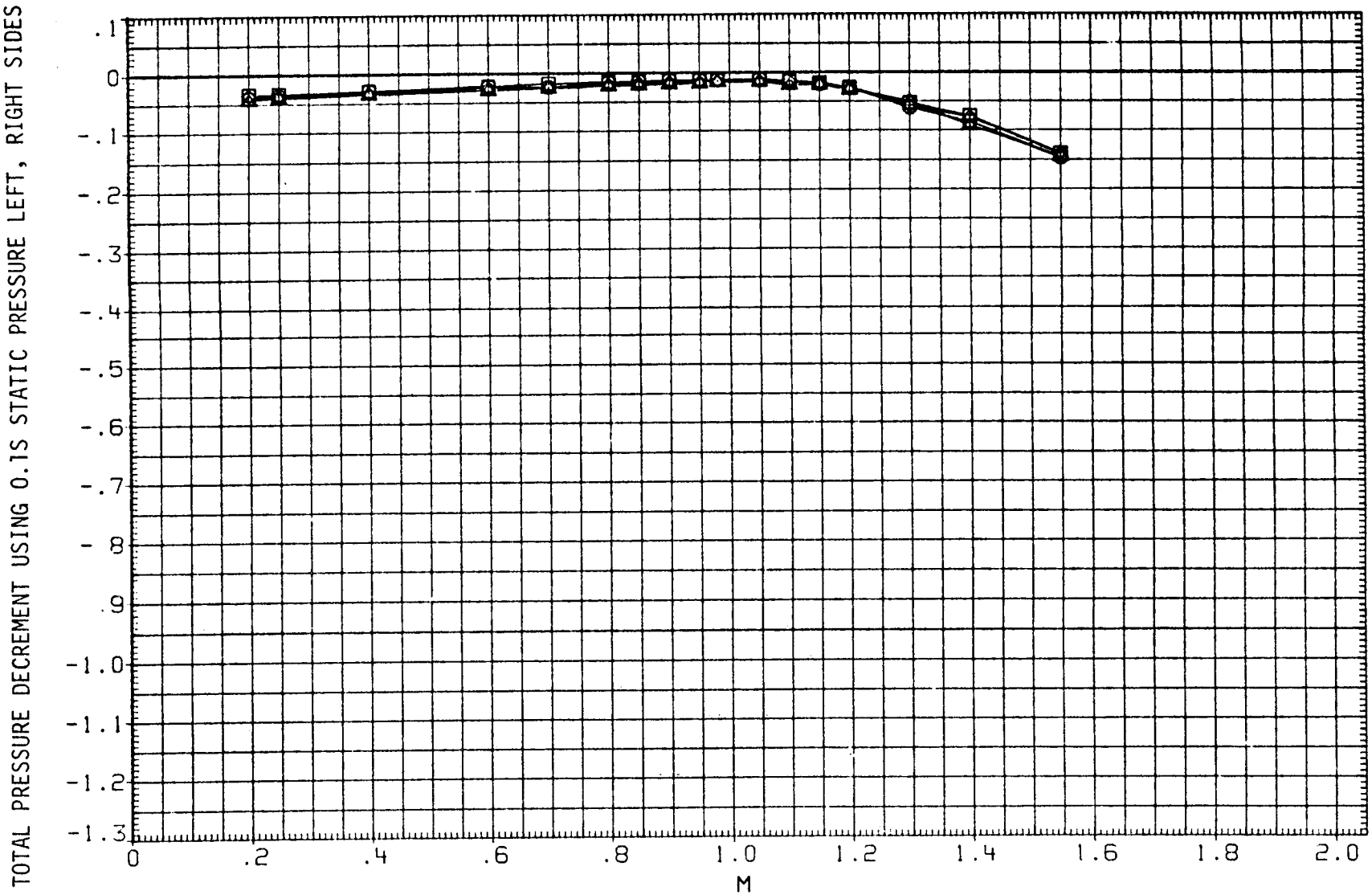


FIG. 69 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS MACH NUMBER
LEFT AND RIGHT SIDES COMPARED

(E)ALPHA = 16.00

DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION			BETA	PHI
RVRU15	○	0A232	RFN.1S AND	RA.2P/S SIDE PROBES COMBINED	2.000	.000
LVRU04	▽	0A232	LFN.1S AND	LA.2P/S SIDE PROBES COMBINED	.000	.000
RVRU14	◇	0A232	RFN.1S AND	RA.2P/S SIDE PROBES COMBINED	.000	.000
LVRU06	△	0A232	LFN.1S AND	LA.2P/S SIDE PROBES COMBINED	2.000	.000

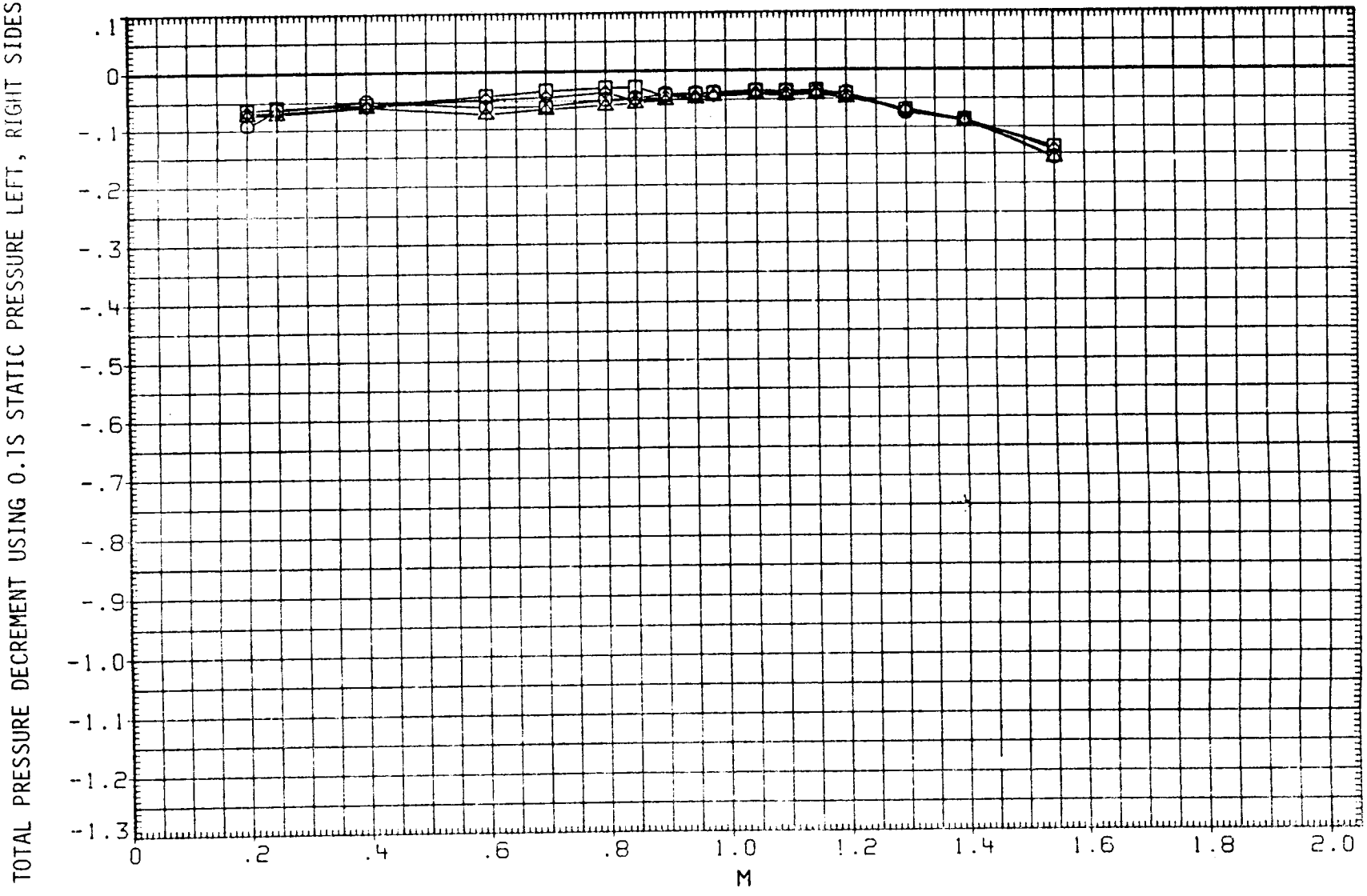


FIG. 69 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS MACH NUMBER
LEFT AND RIGHT SIDES COMPARED
DATE 10 AUG 78

(F)ALPHA = 18.00

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA04	○	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA06	□	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

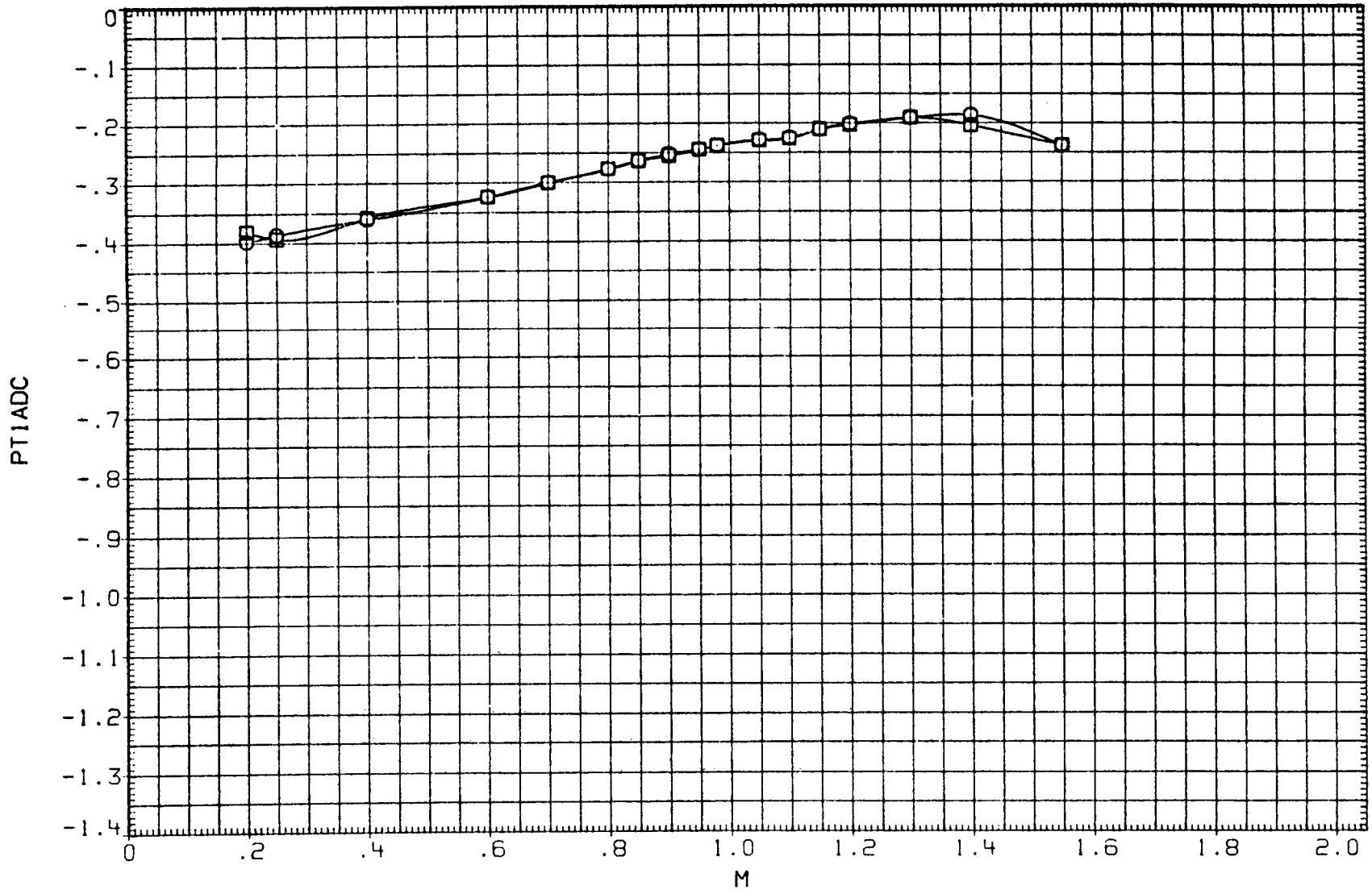


FIG. 70 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS MACH NUMBER AVERAGED (L + R) / 2

(A)ALPHA = .00 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA04	○	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA06	□	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

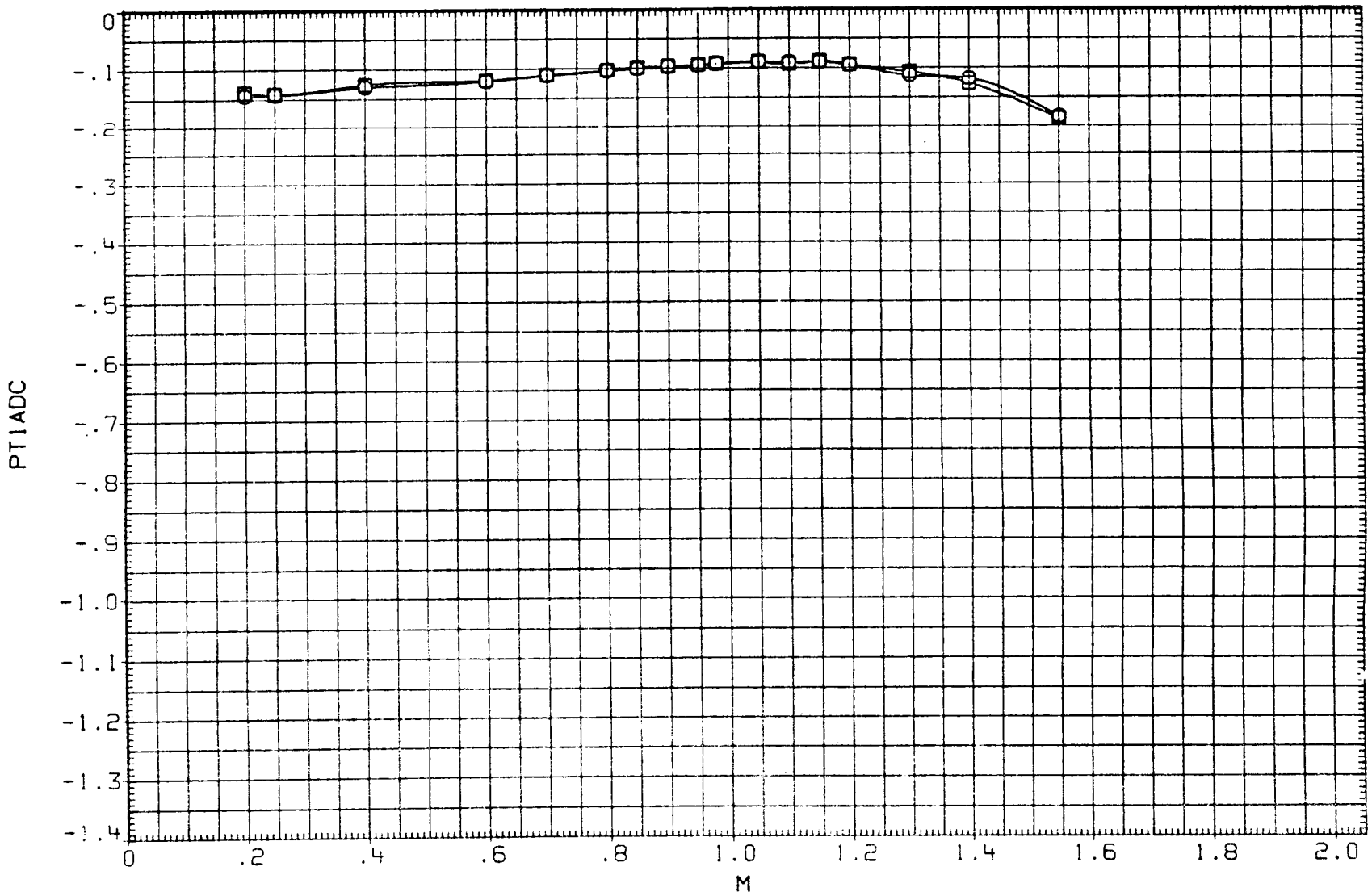


FIG. 70 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS MACH NUMBER
AVERAGED (L + R) / 2

(B)ALPHA = 4.00 DATE 10 AUG 78 PAGE 134

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA04	○	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA06	□	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

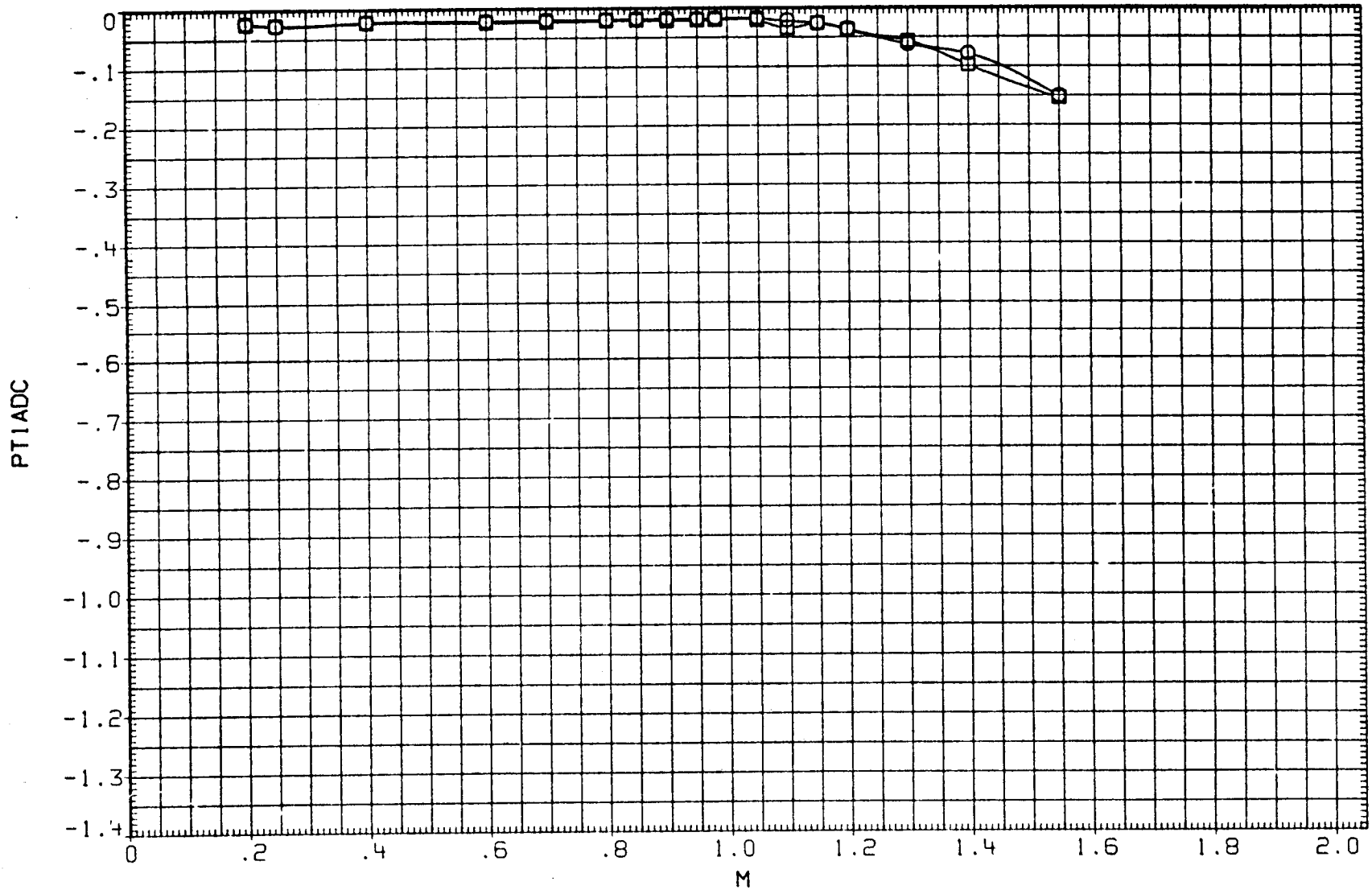


FIG. 70 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS MACH NUMBER
AVERAGED (L + R) / 2

(C)ALPHA = 8.00 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA04	○	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA06	□	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

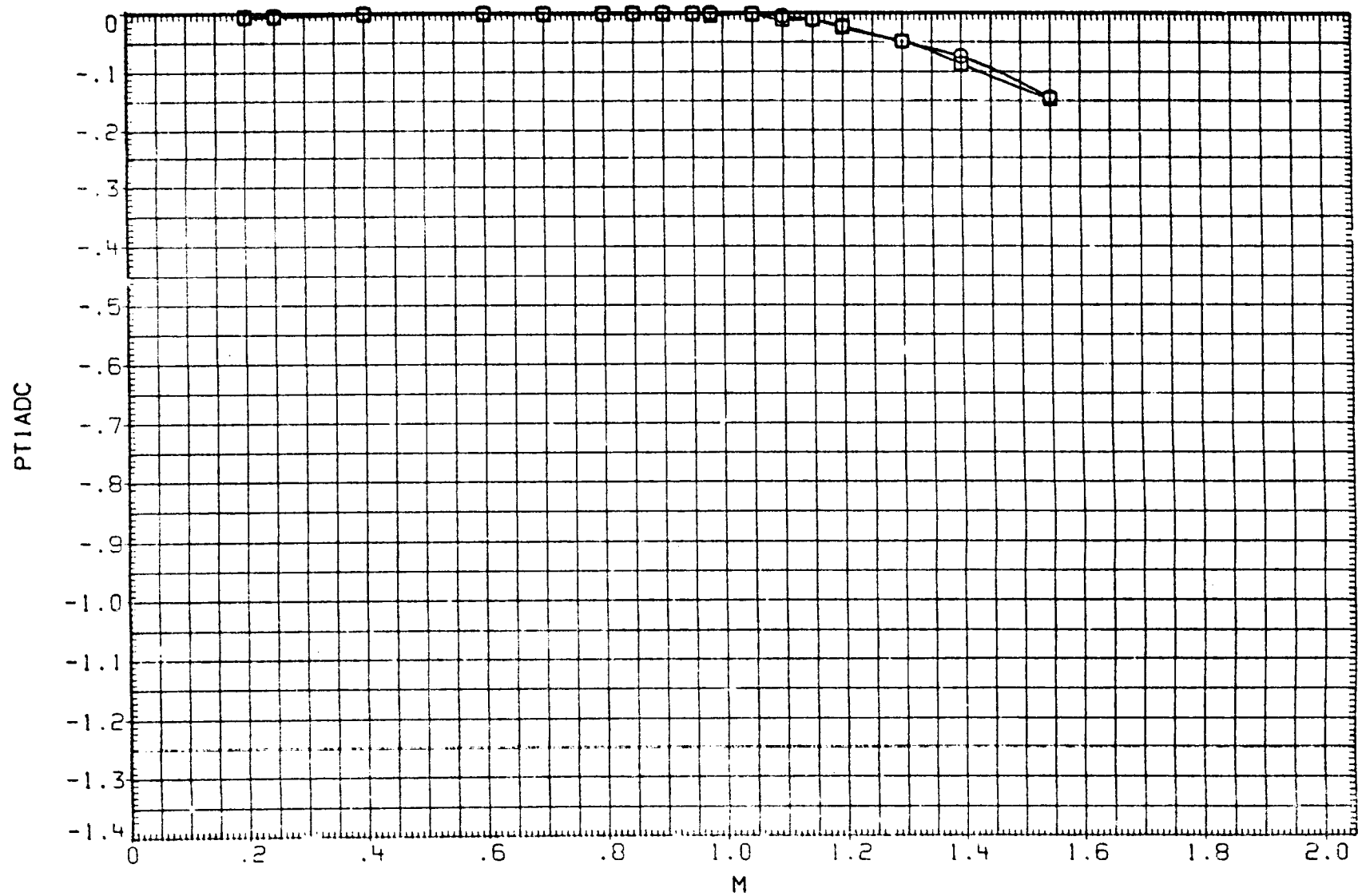


FIG. 70 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS MACH NUMBER AVERAGED (L + R) / 2

(D) ALPHA = 12.00 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA04	○	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA06	□	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

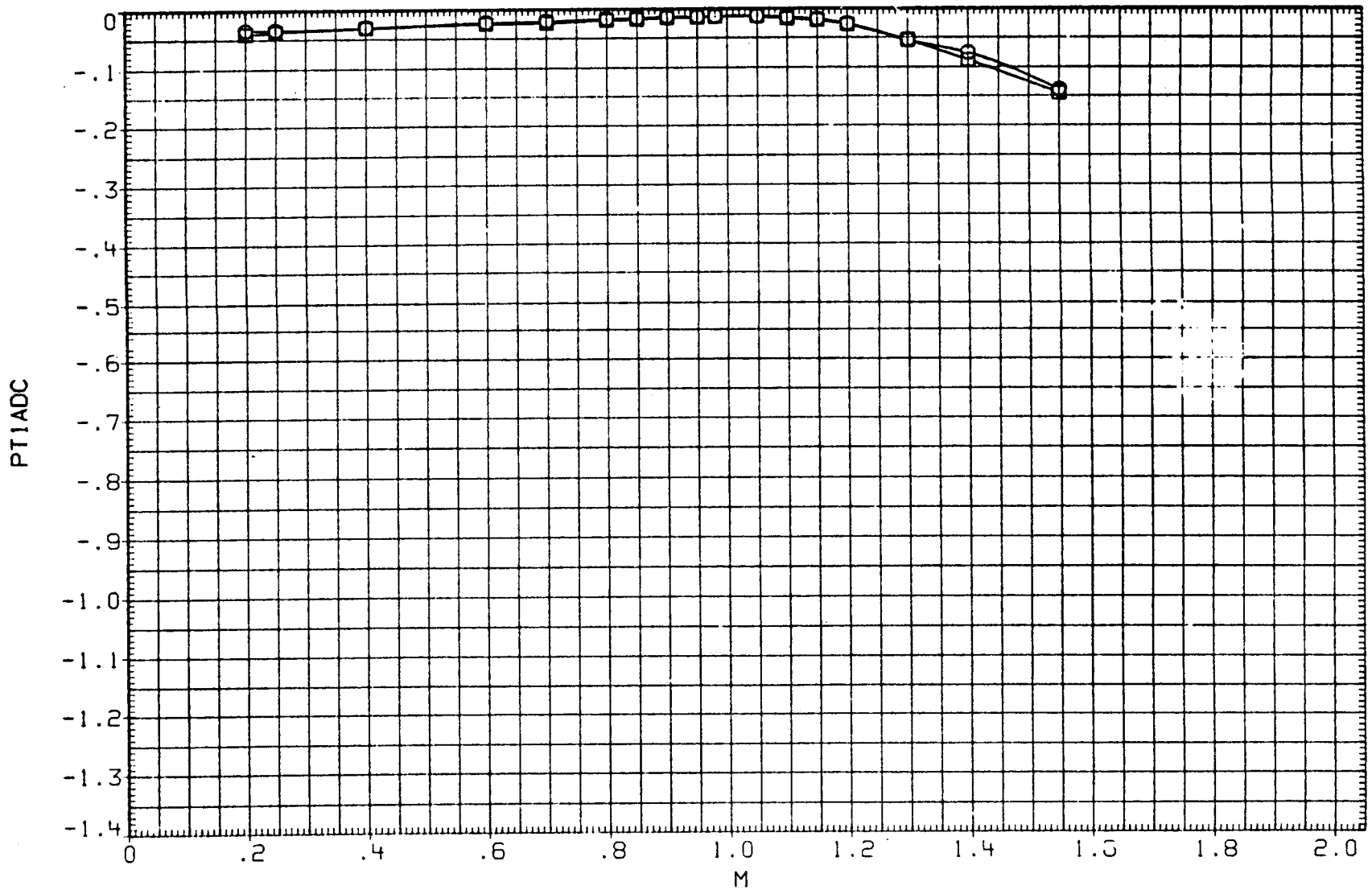


FIG. 70 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS MACH NUMBER
AVERAGED (L + R) / 2

(E)ALPHA = 16.00 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA04	○	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA06	□	0A232 FN.1S A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

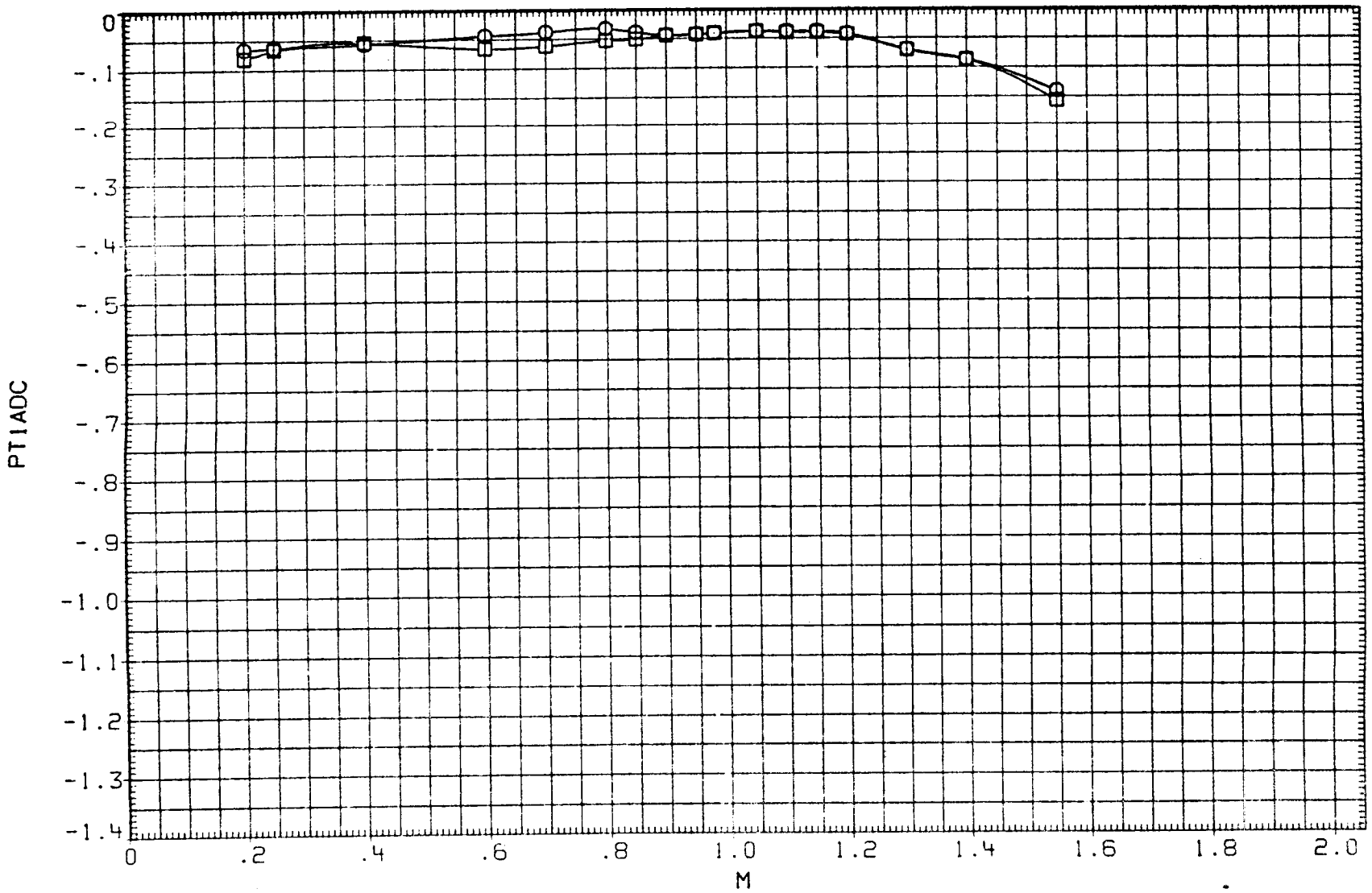


FIG. 70 TOTAL PRESSURE DECREMENT-USING 0.1S STATIC VERSUS MACH NUMBER AVERAGED (L + R) / 2

(F)ALPHA = 18.00 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
LVR714	○	0A232 LA .2A AND LA.2P/S SIDE PROBES COMBINED	.000	.000
LVR715	□	0A232 LA .2A AND LA.2P/S SIDE PROBES COMBINED	2.000	.000

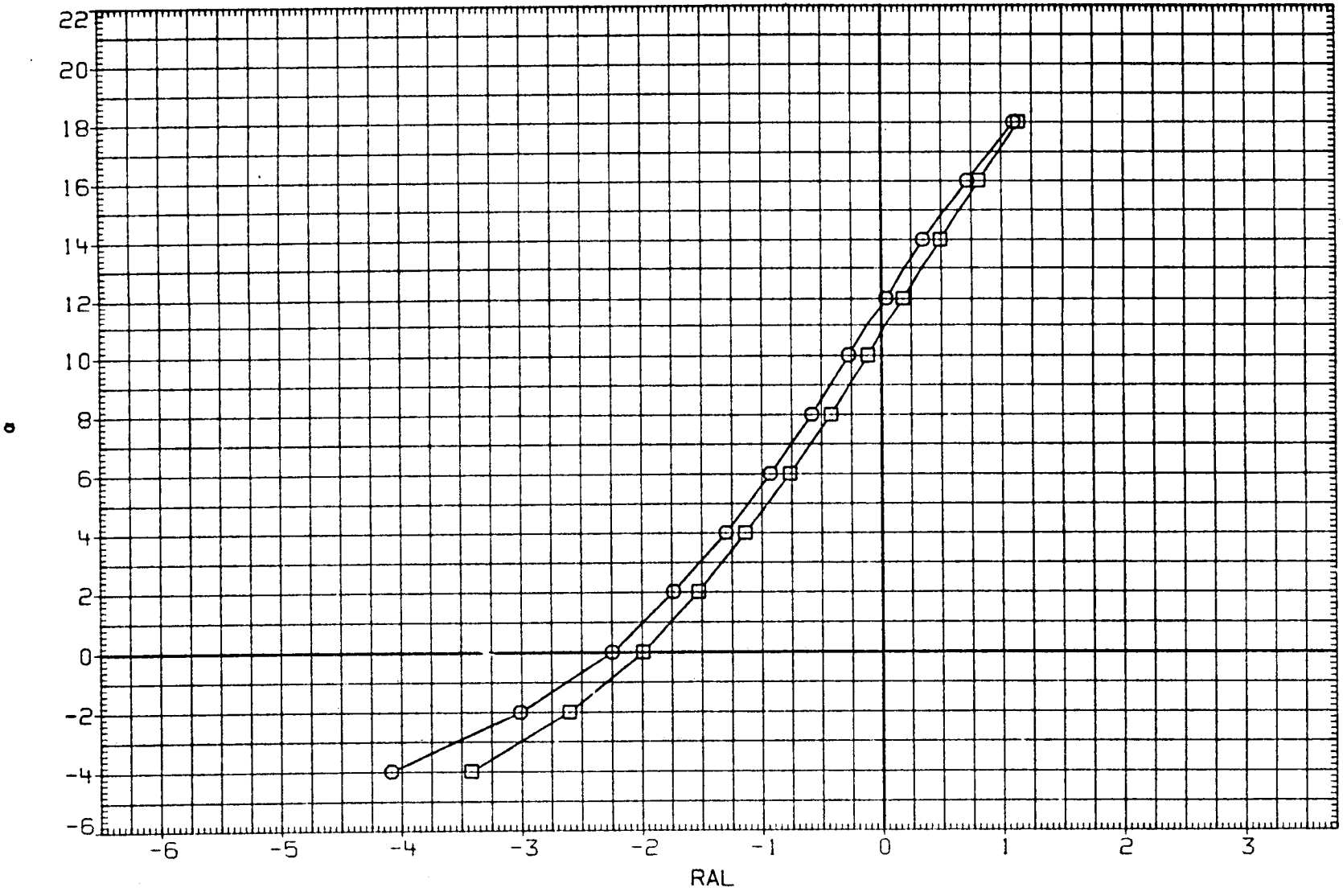


FIG. 71 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS ALPHA
LEFT SIDE

(A)MACH = .20 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
LVR714	○	0A232 LA .2A AND LA.2P/S SIDE PROBES COMBINED	.000	.000
LVR715	□	0A232 LA .2A AND LA.2P/S SIDE PROBES COMBINED	2.000	.000

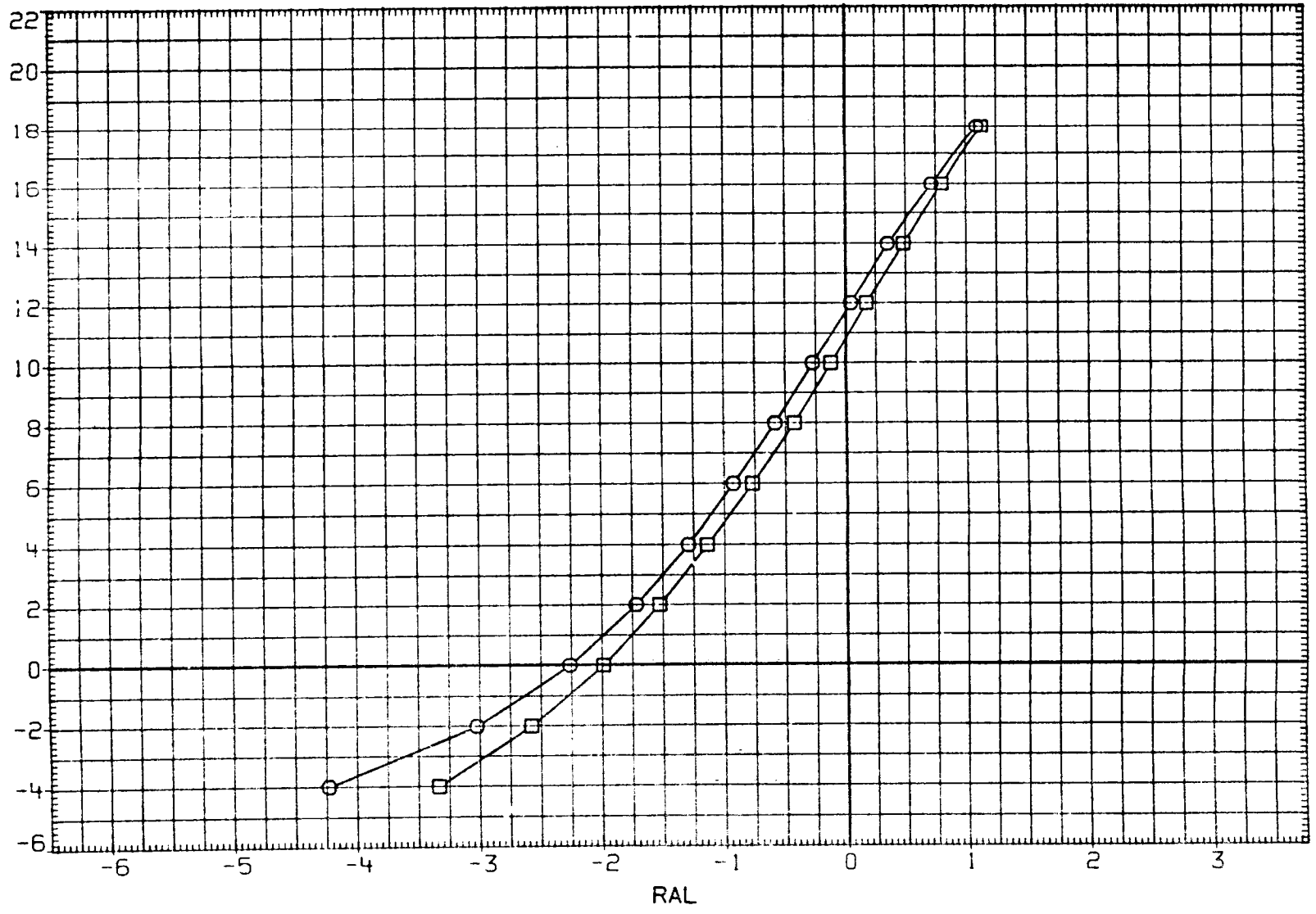


FIG. 71 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS ALPHA
LEFT SIDE

(B)MACH = .25 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
LVR714	○	0A232 LA .2A AND LA.2P/S SIDE PROBES COMBINED	.000	.000
LVR715	□	0A232 LA .2A AND LA.2P/S SIDE PROBES COMBINED	2.000	.000

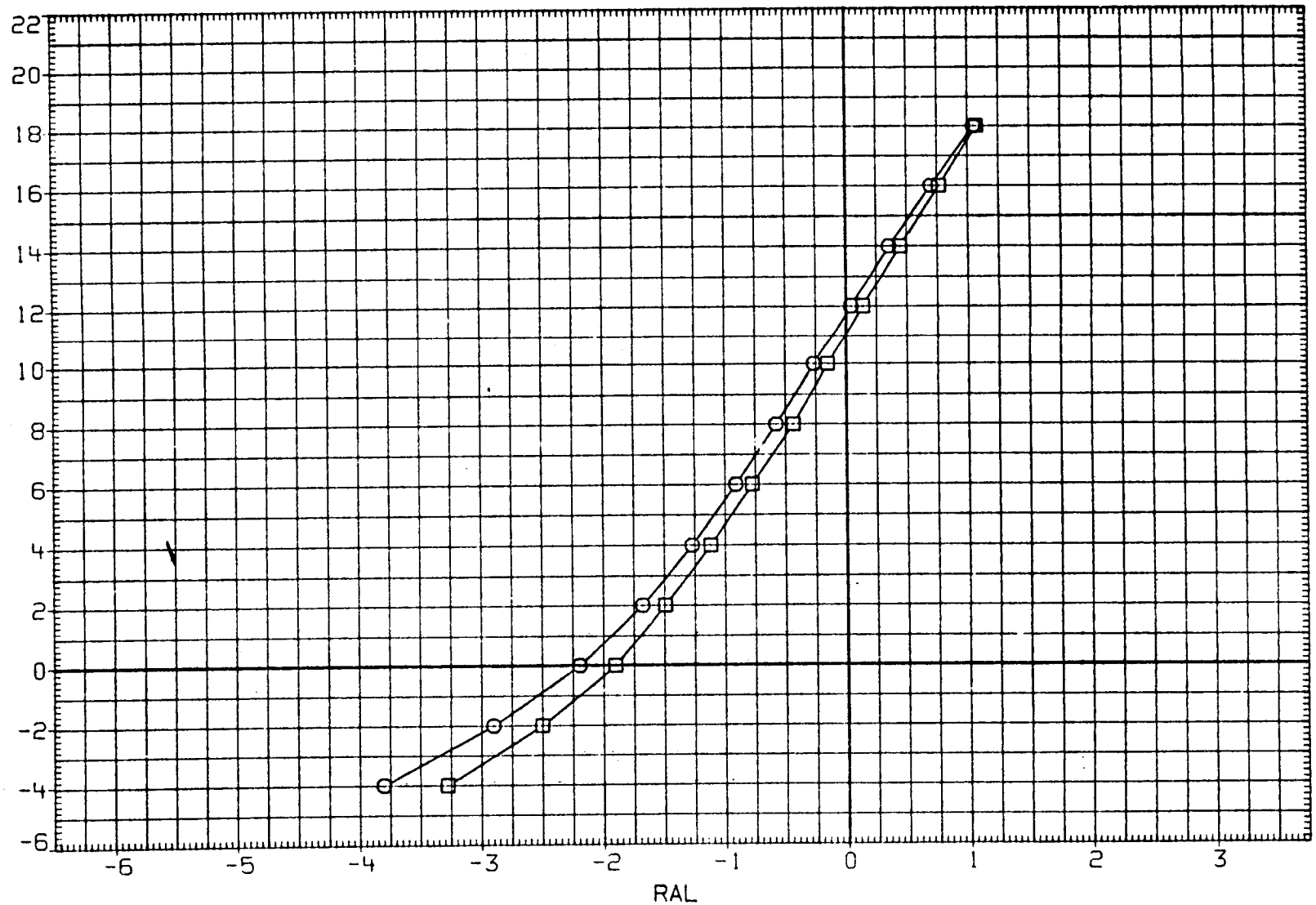


FIG. 71 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS ALPHA
LEFT SIDE

(C)MACH = .40 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
LVR714	○	0A232 LA .2A AND LA.2P/S SIDE PROBES COMBINED	.000	.000
LVR715	□	0A232 LA .2A AND LA.2P/S SIDE PROBES COMBINED	2.000	.000

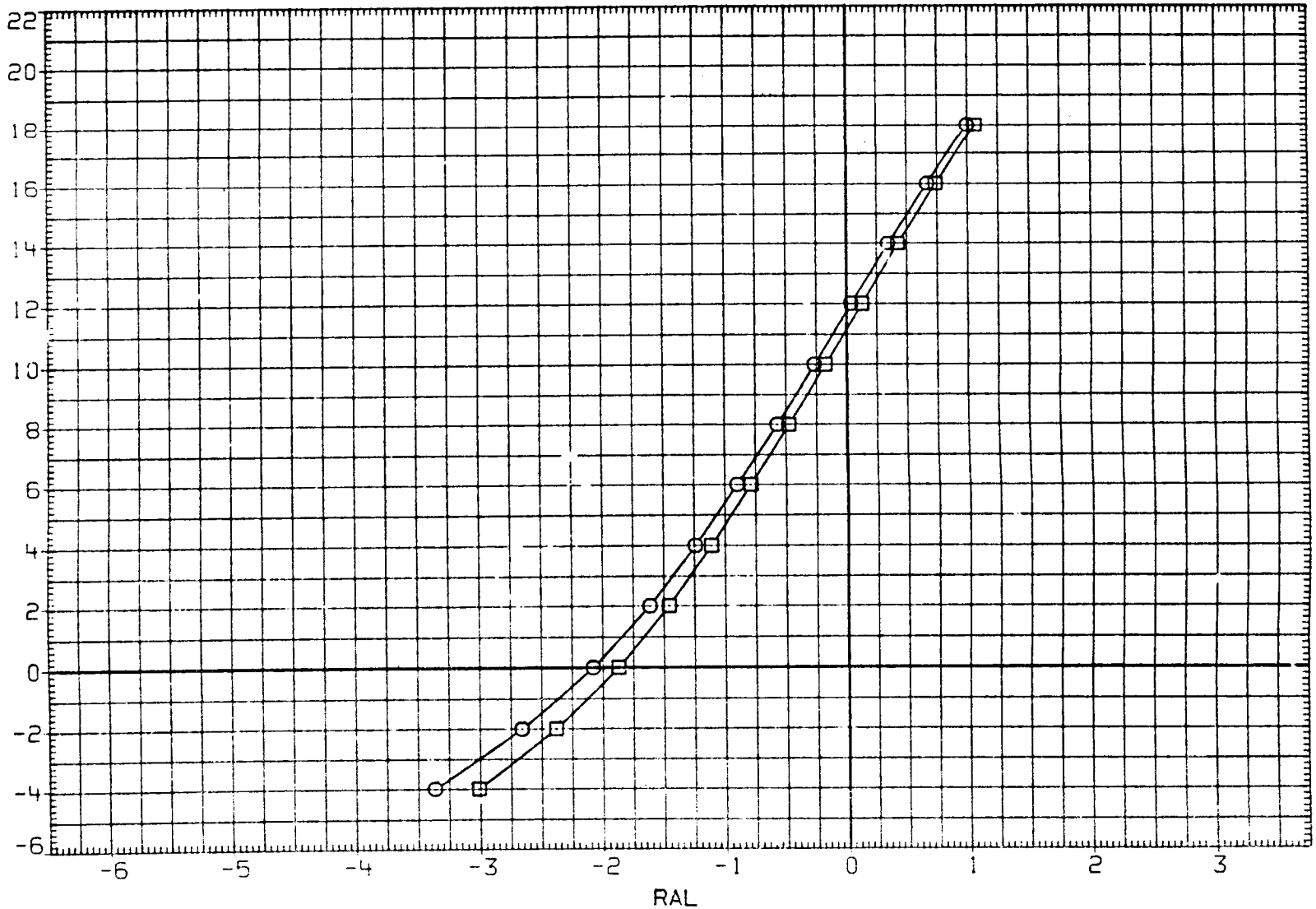


FIG. 71 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS ALPHA
LEFT SIDE

(D)MACH = .60 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
LVR714	○	0A232 LA .2A AND LA.2P/S SIDE PROBES COMBINED	.000	.000
LVR715	□	0A232 LA .2A AND LA.2P/S SIDE PROBES COMBINED	2.000	.000

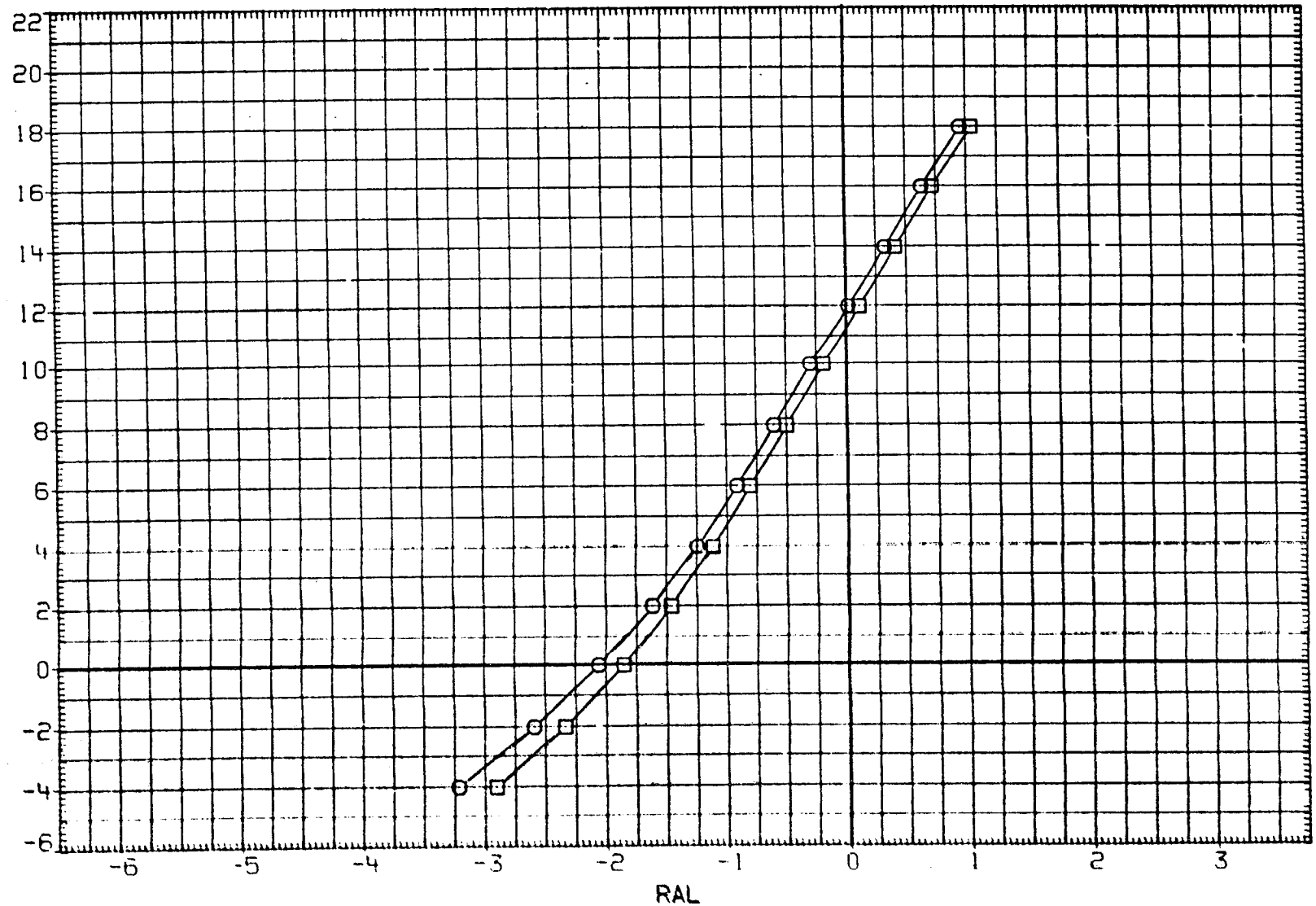


FIG. 71 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS ALPHA
LEFT SIDE

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
LVR714	○	0A232 LA .2A AND LA.2P/S SIDE PROBES COMBINED	.000	.000
LVR715	□	0A232 LA .2A AND LA.2P/S SIDE PROBES COMBINED	2.000	.000

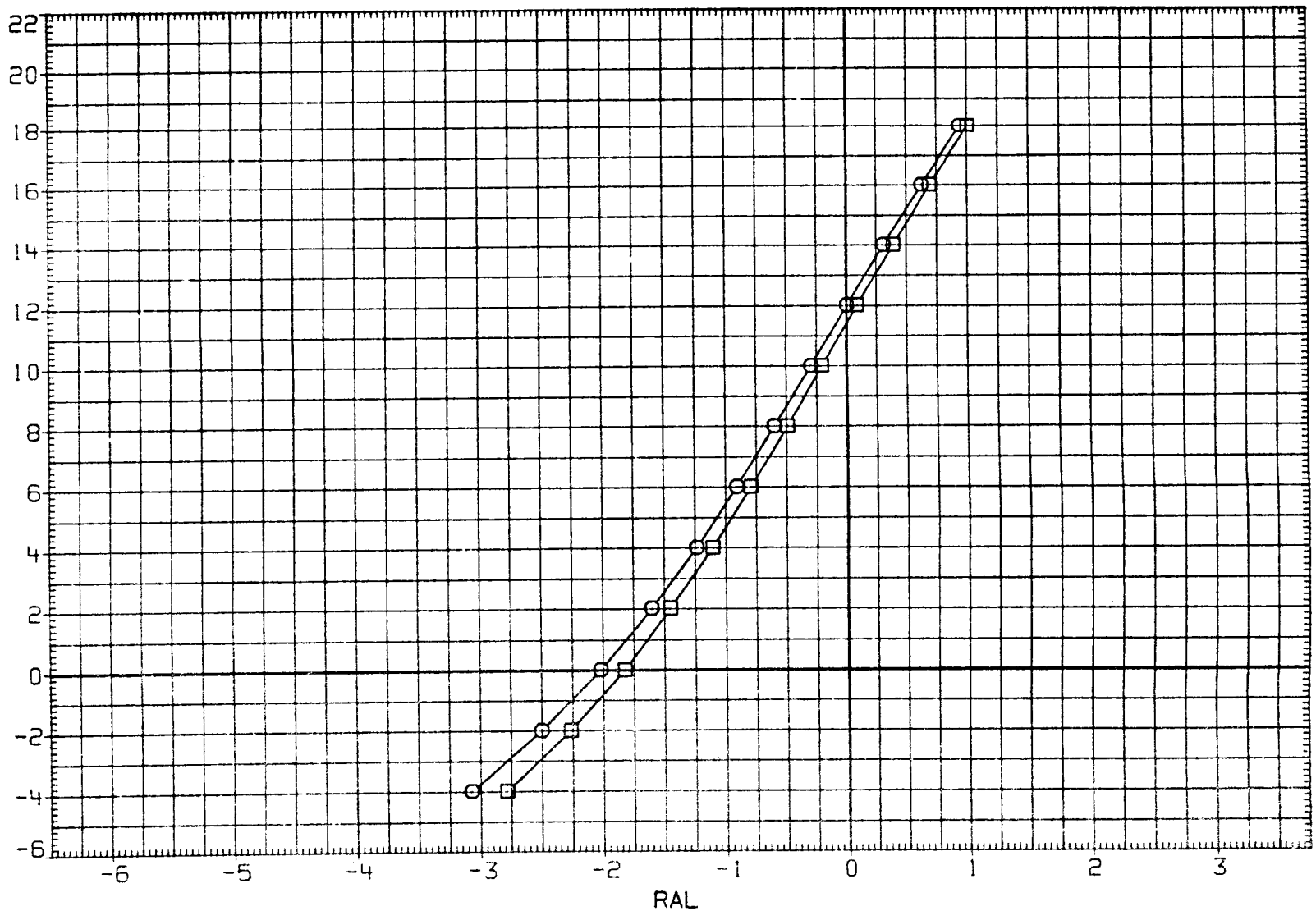


FIG. 71 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS ALPHA
LEFT SIDE

(F)MACH = .80 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
LVR714	○	0A232 LA .2A AND LA.2P/S SIDE PROBES COMBINED	.000	.000
LVR715	□	0A232 LA .2A AND LA.2P/S SIDE PROBES COMBINED	2.000	.000

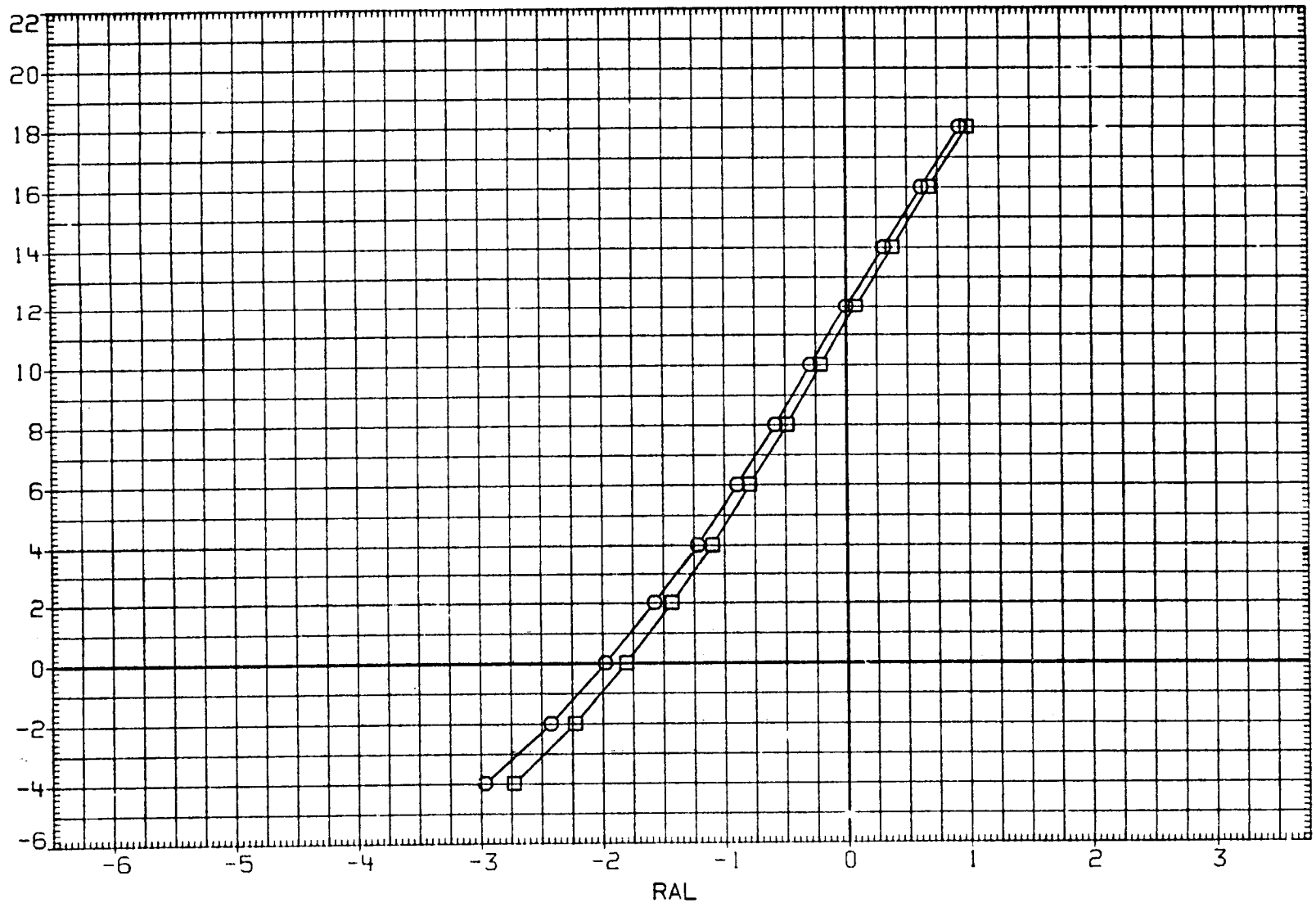


FIG. 71 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS ALPHA
LEFT SIDE

(G)MACH = .85 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
LVR714	○	0A232 LA .2A AND LA.2P/S SIDE PROBES COMBINED	.000	.000
LVR715	□	0A232 LA .2A AND LA.2P/S SIDE PROBES COMBINED	2.000	.000

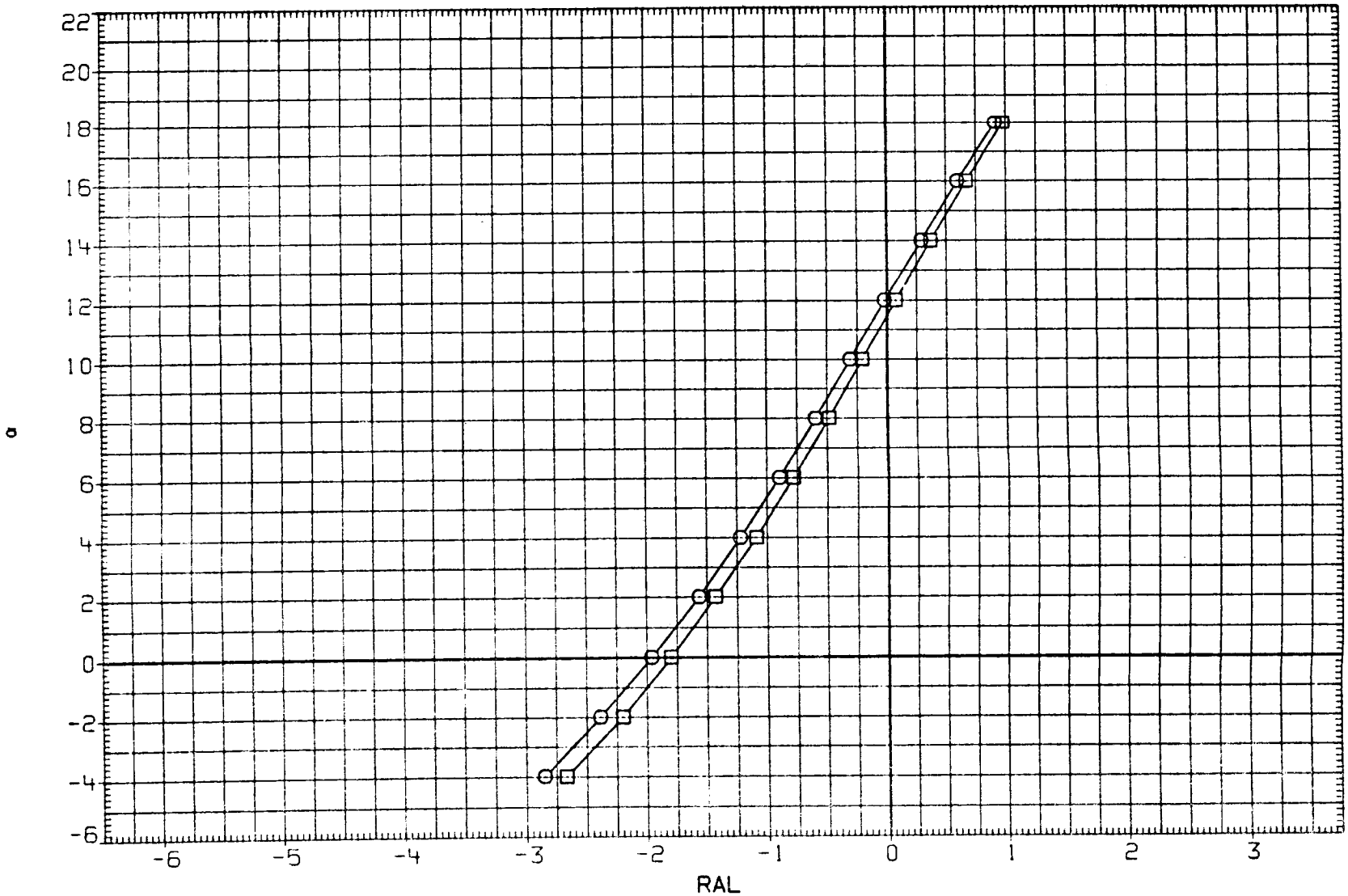


FIG. 71 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS ALPHA
LEFT SIDE

(H)MACH = .90 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
LVR714	○	0A232 LA .2A AND LA.2P/S SIDE PROBES COMBINED	.000	.000
LVR715	□	0A232 LA .2A AND LA.2P/S SIDE PROBES COMBINED	2.000	.000

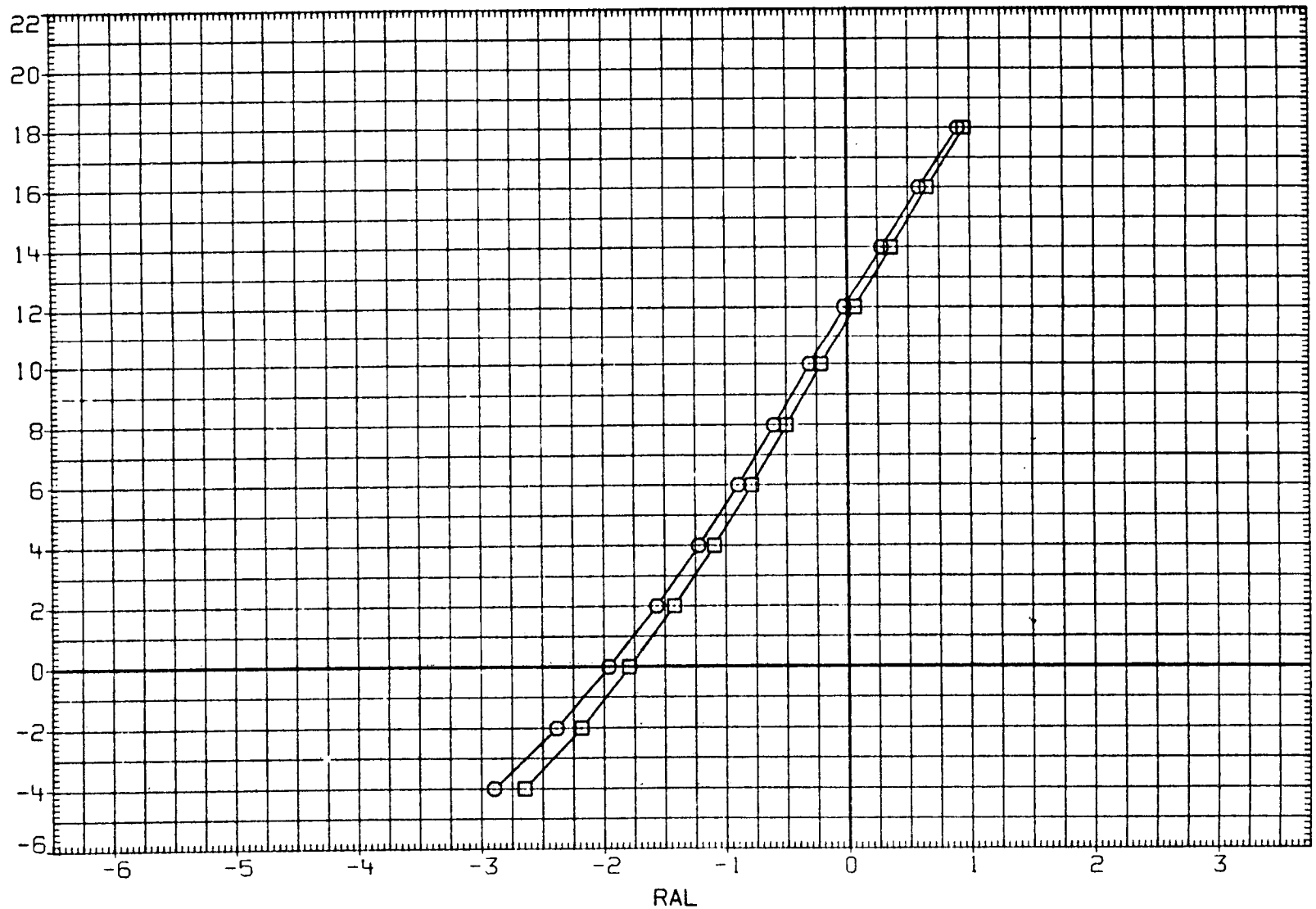


FIG. 71 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS ALPHA
LEFT SIDE

(I)MACH = .95 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
LVR714	○	0A232 LA .2A AND LA.2P/S SIDE PROBES COMBINED	.000	.000
LVR715	□	0A232 LA .2A AND LA.2P/S SIDE PROBES COMBINED	2.000	.000

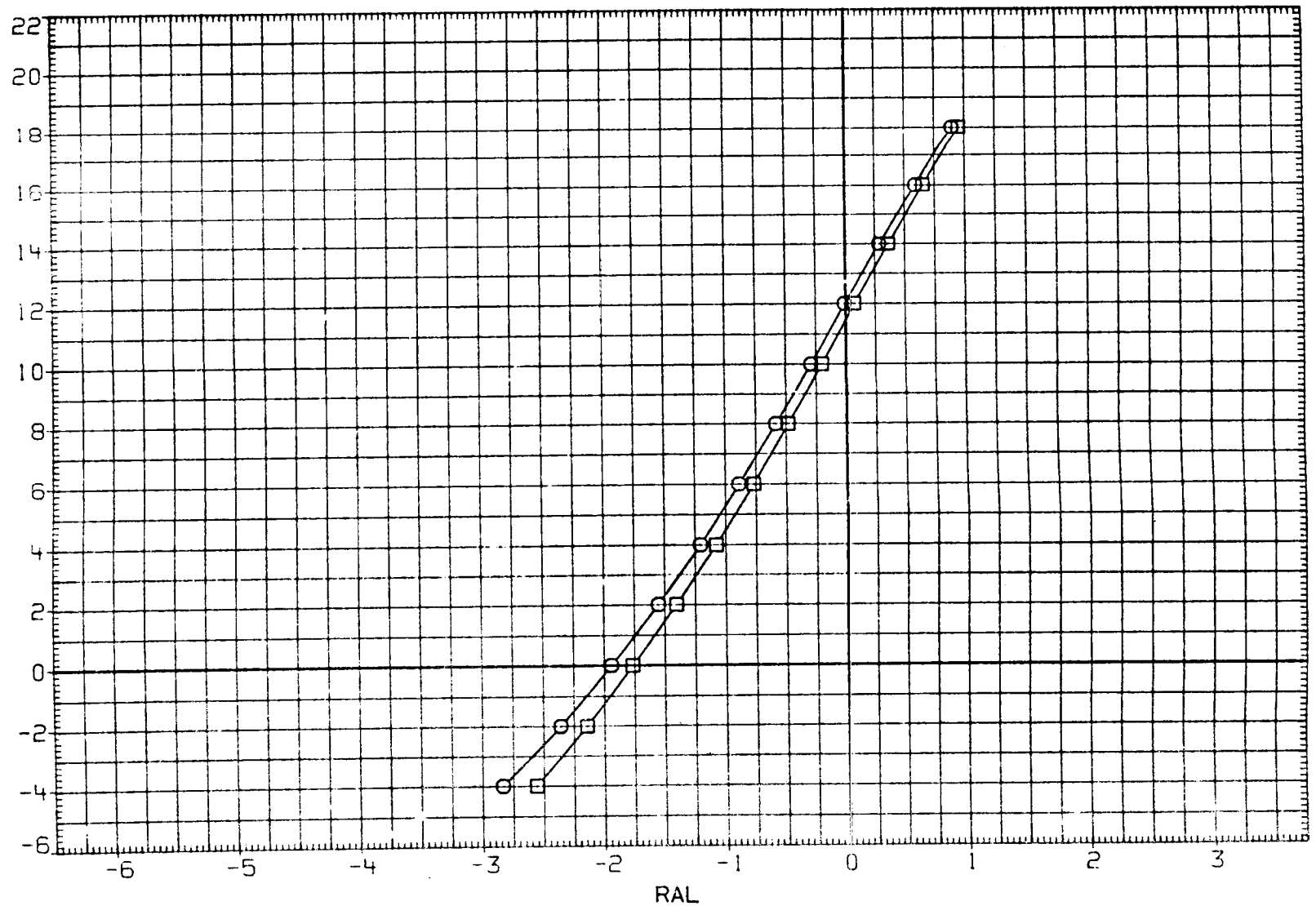


FIG. 71 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS ALPHA
LEFT SIDE

(J)MACH = .98 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
LVR714	○	0A232 LA .2A AND LA.2P/S SIDE PROBES COMBINED	.000	.000
LVR715	□	0A232 LA .2A AND LA.2P/S SIDE PROBES COMBINED	2.000	.000

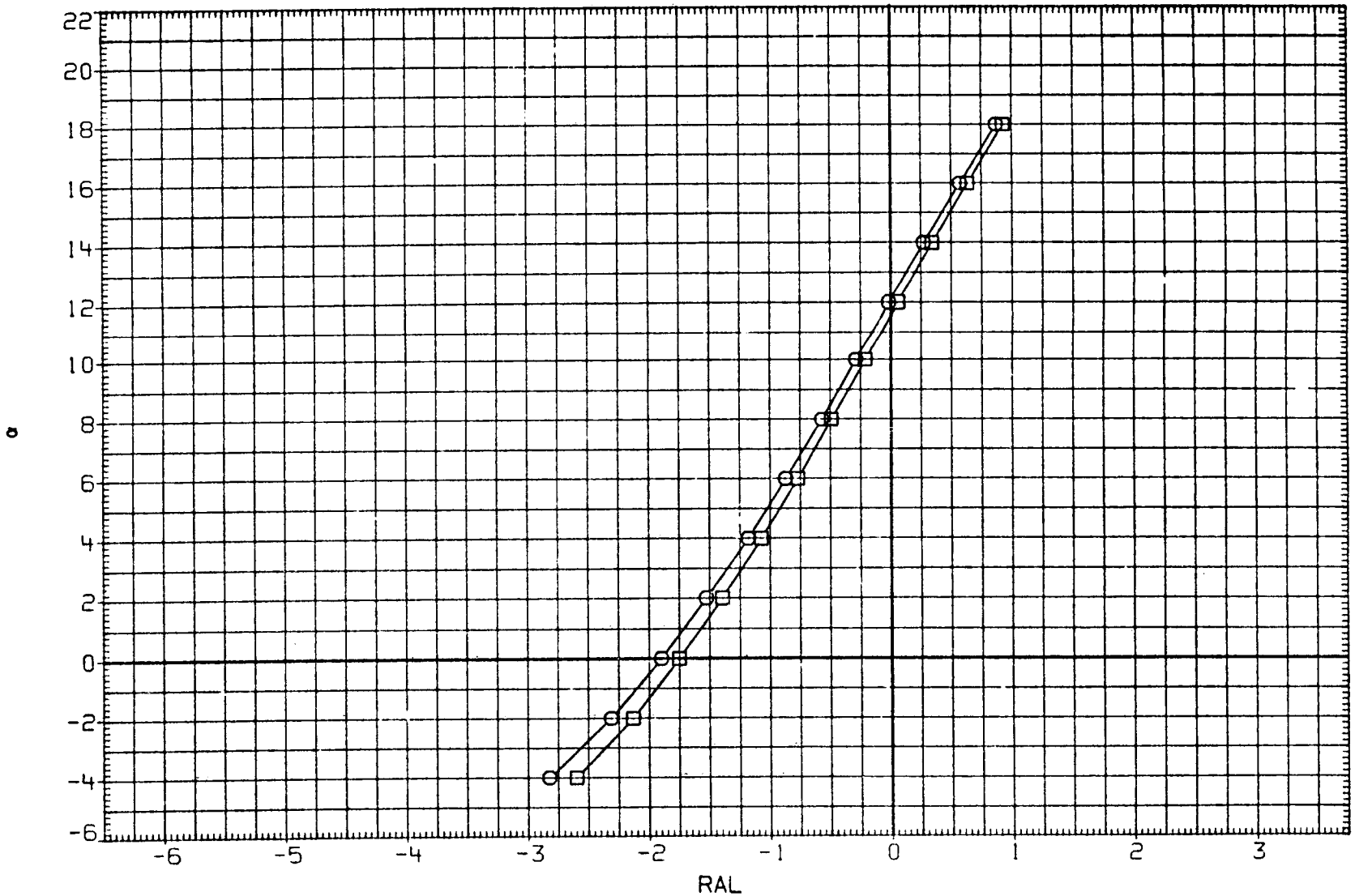


FIG. 71 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS ALPHA
LEFT SIDE

(K)MACH = 1.05 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
LVR714	○	0A232 LA .2A AND LA.2P/S SIDE PROBES COMBINED	.000	.000
LVR715	□	0A232 LA .2A AND LA.2P/S SIDE PROBES COMBINED	2.000	.000

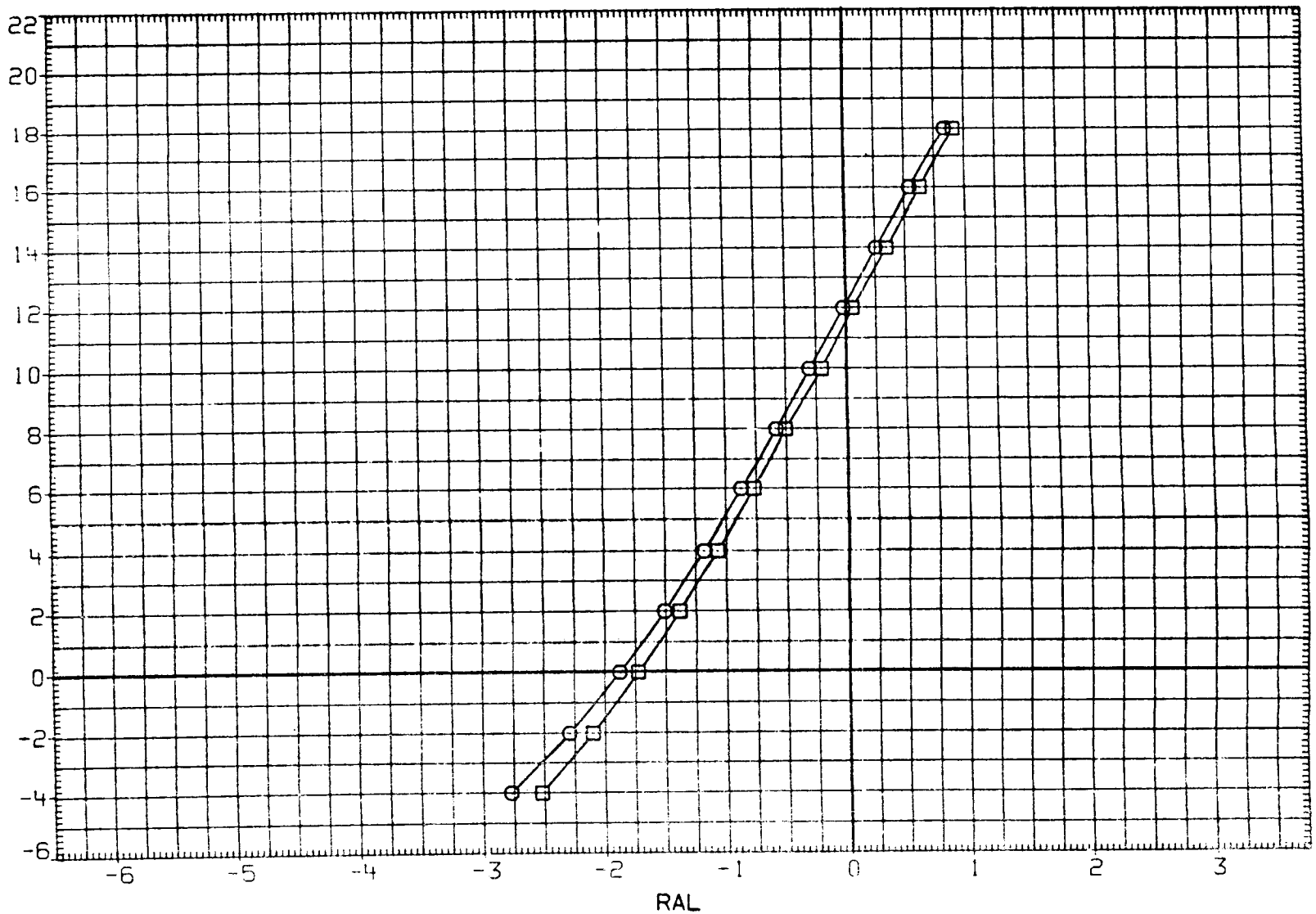


FIG. 71 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS ALPHA
LEFT SIDE

(L)MACH = 1.10 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
LVR714	○	0A232 LA .2A AND LA.2P/S SIDE PROBES COMBINED	.000	.000
LVR715	□	0A232 LA .2A AND LA.2P/S SIDE PROBES COMBINED	2.000	.000

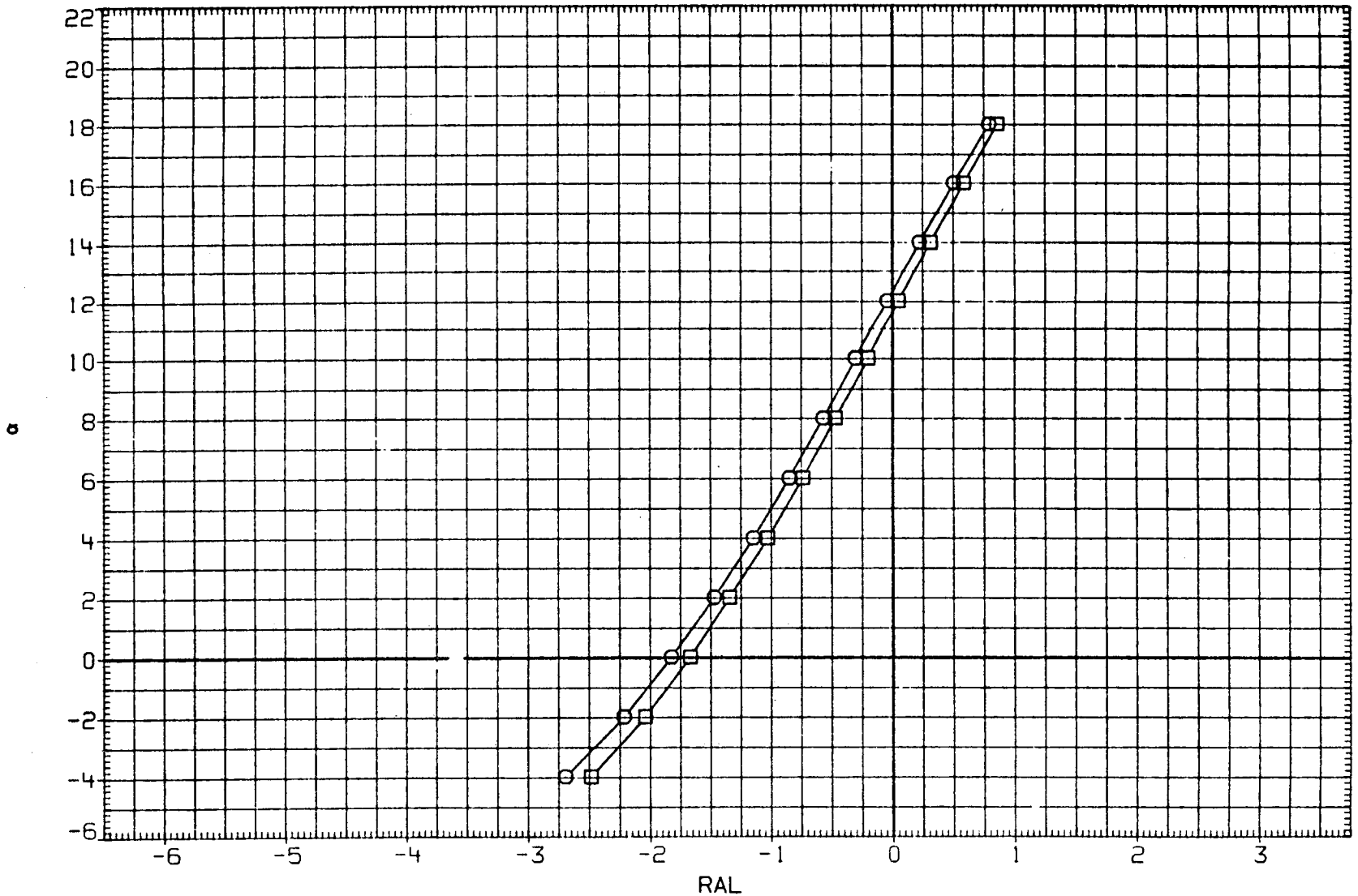


FIG. 71 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS ALPHA
LEFT SIDE

(M)MACH = 1.15 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
LVR714	○	0A232 LA .2A AND LA.2P/S SIDE PROBES COMBINED	.000	.000
LVR715	□	0A232 LA .2A AND LA.2P/S SIDE PROBES COMBINED	2.000	.000

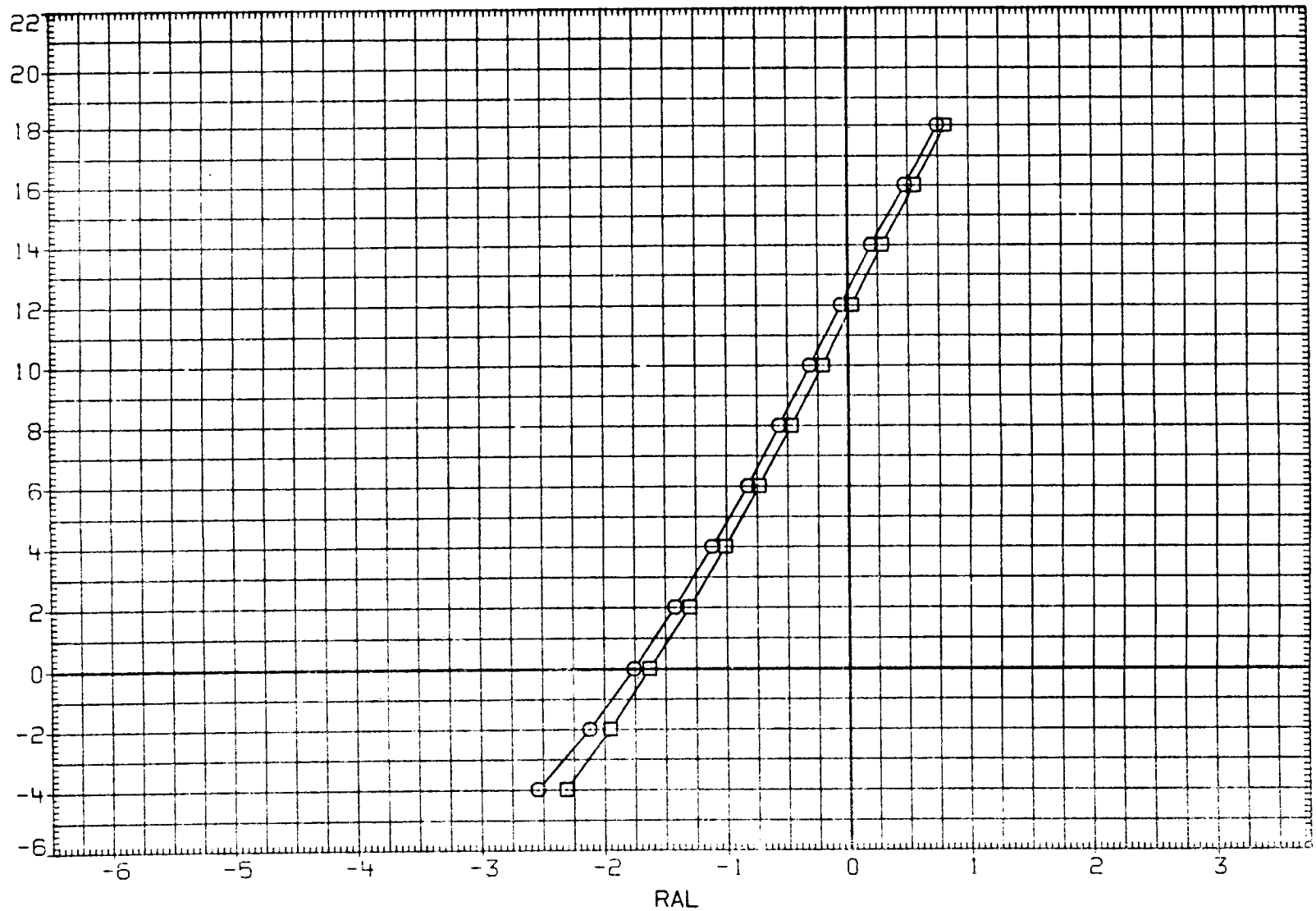


FIG. 71 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS ALPHA
LEFT SIDE

(N)MACH = 1.20 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
LVR714	○	0A232 LA .2A AND LA.2P/S SIDE PROBES COMBINED	.000	.000
LVR715	□	0A232 LA .2A AND LA.2P/S SIDE PROBES COMBINED	2.000	.000

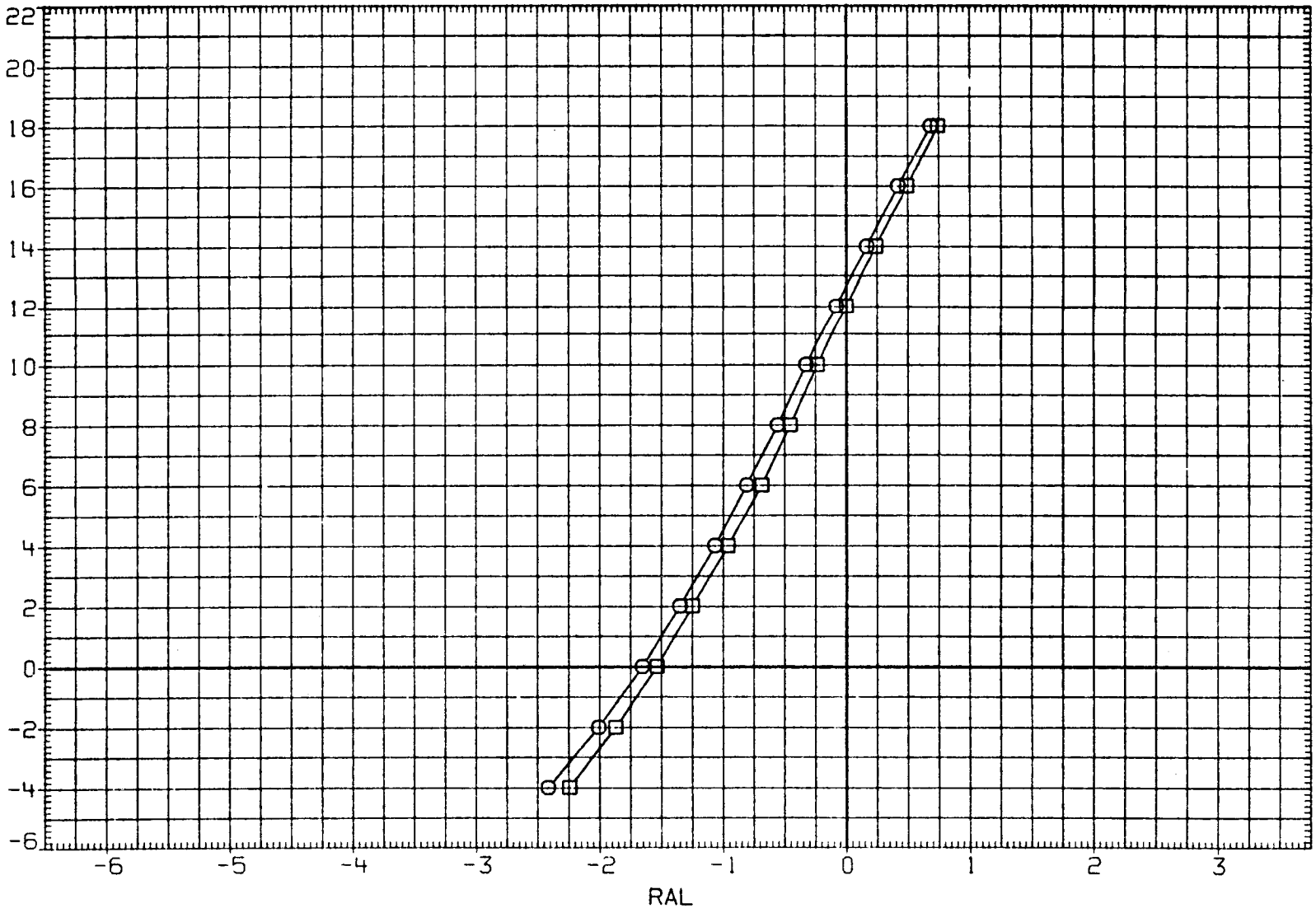


FIG. 71 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS ALPHA
LEFT SIDE

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
LVR714	○	0A232 LA .2A AND LA.2P/S SIDE PROBES COMBINED	.000	.000
LVR715	□	0A232 LA .2A AND LA.2P/S SIDE PROBES COMBINED	2.000	.000

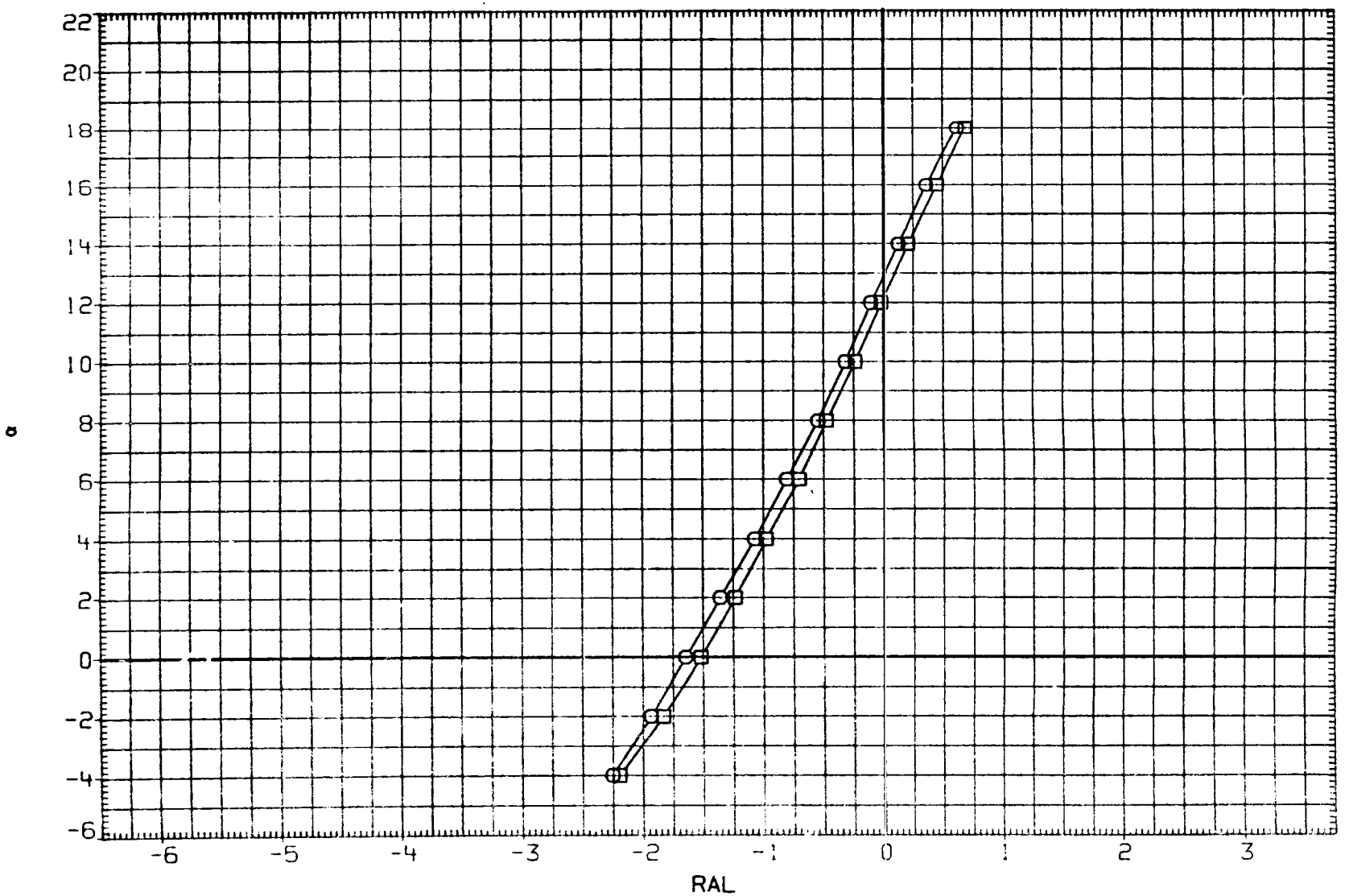


FIG. 71 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS ALPHA
LEFT SIDE

(P)MACH = 1.40 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
LVR714	○	0A232 LA .2A AND LA.2P/S SIDE PROBES COMBINED	.000	.000
LVR715	□	0A232 LA .2A AND LA.2P/S SIDE PROBES COMBINED	2.000	.000

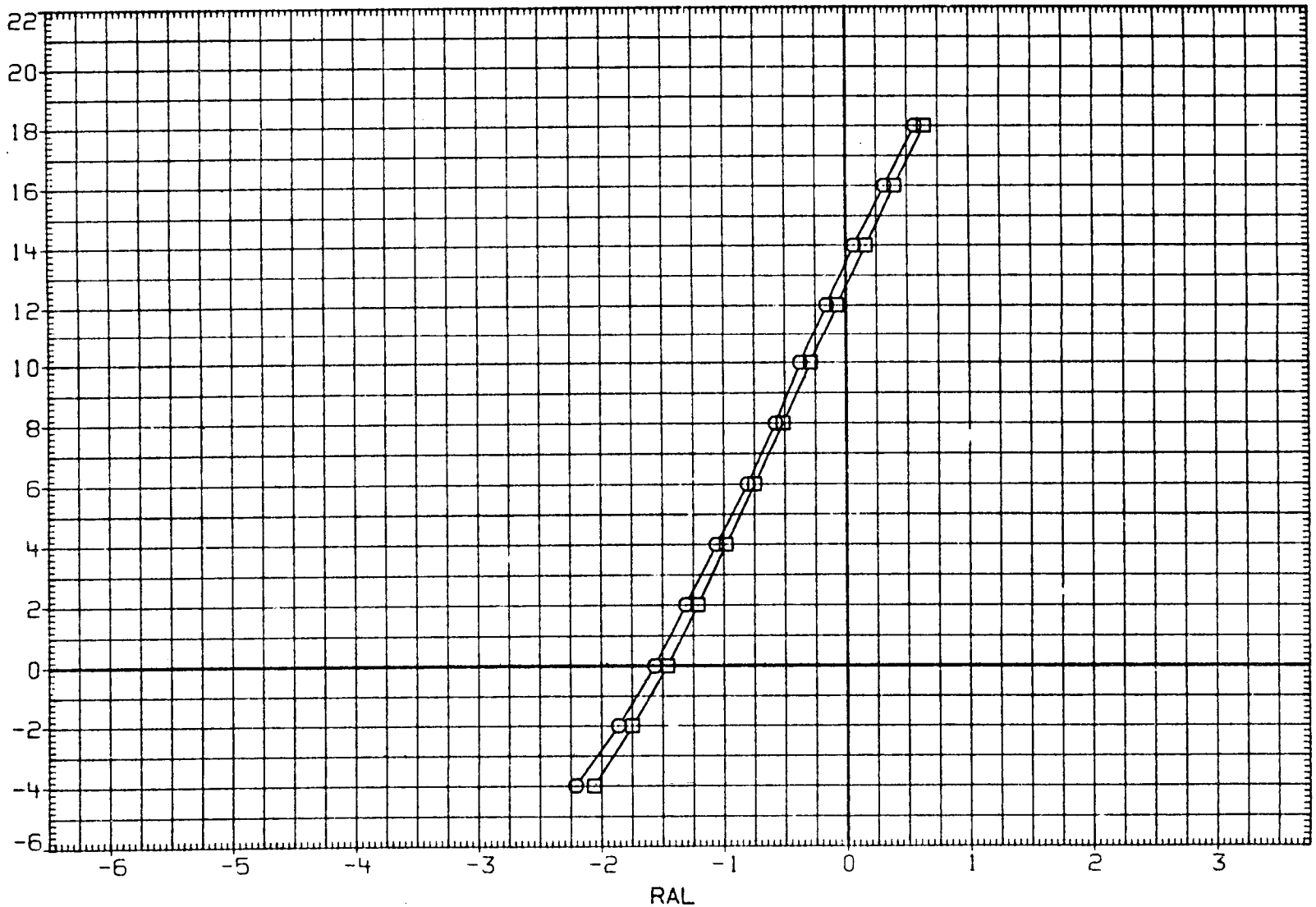


FIG. 71 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS ALPHA
LEFT SIDE

(Q)MACH = 1.55 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
RVR711	○	0A232 RA .2A AND RA.2P/S SIDE PROBES COMBINED	.000	.000
RVR712	□	0A232 RA .2A AND RA.2P/S SIDE PROBES COMBINED	2.000	.000

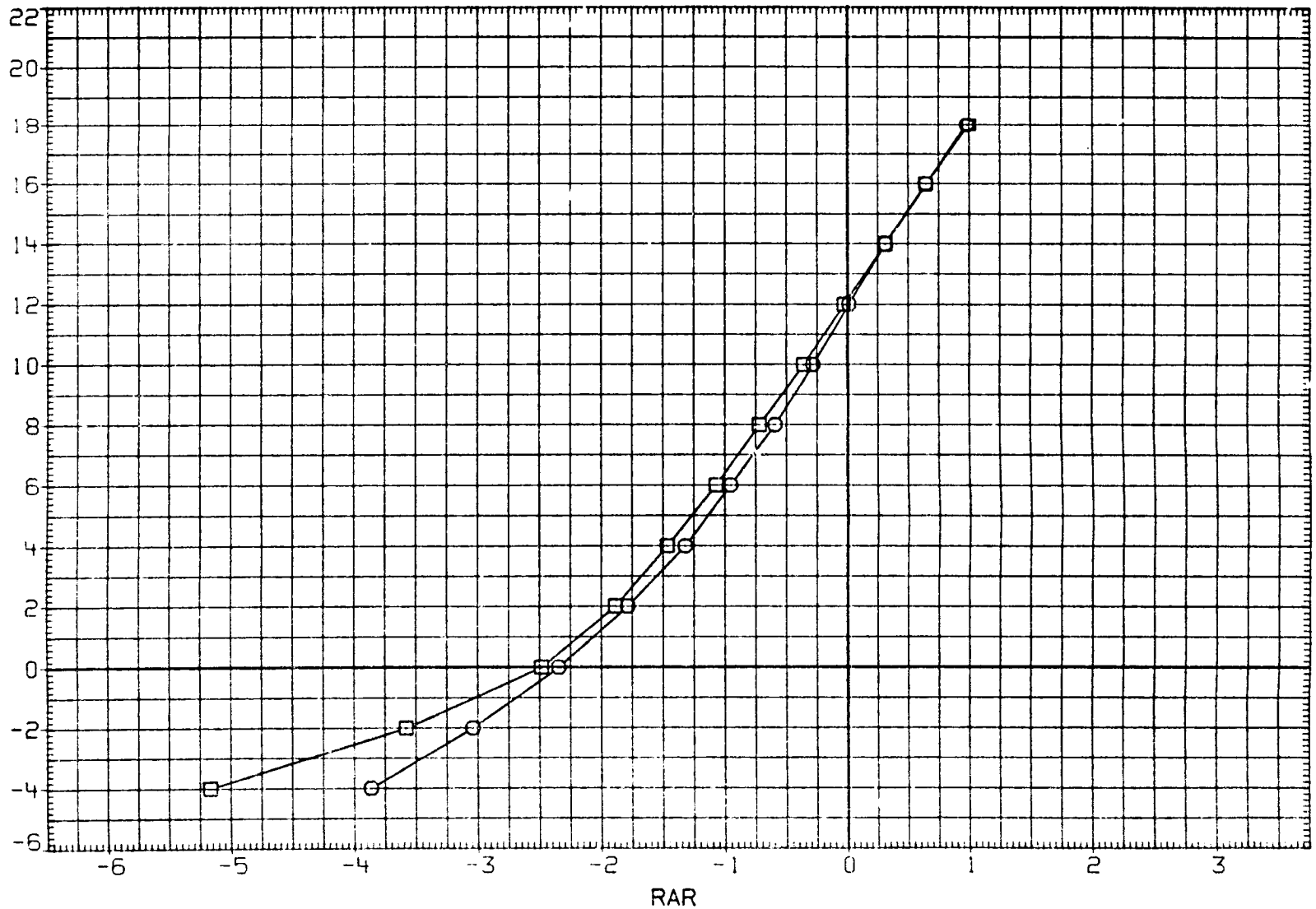


FIG. 72 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS ALPHA
RIGHT SIDE

(A)MACH = .20 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
RVR711	○	0A232 RA .2A AND RA.2P/S SIDE PROBES COMBINED	.000	.000
RVR712	□	0A232 RA .2A AND RA.2P/S SIDE PROBES COMBINED	2.000	.000

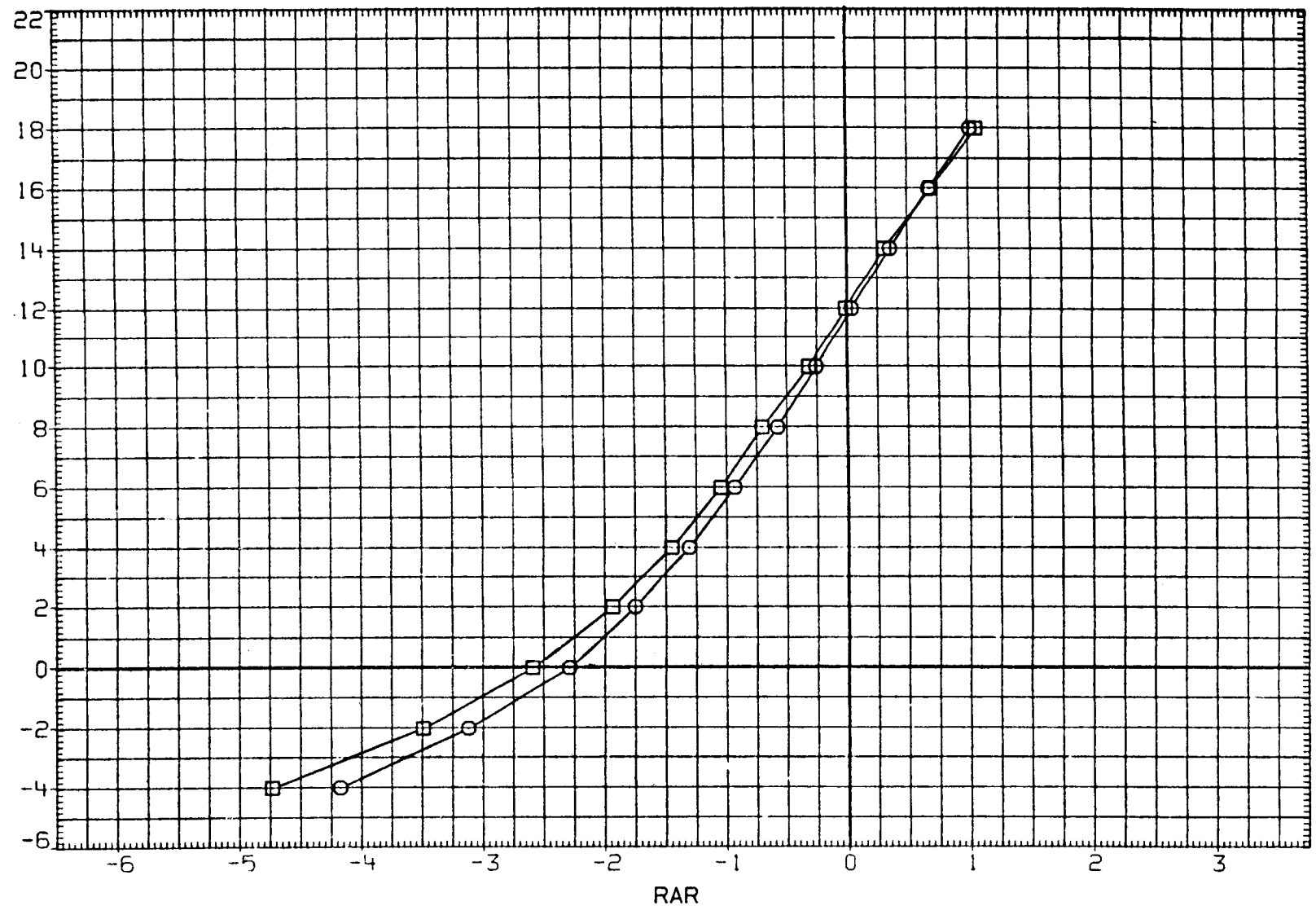


FIG. 72 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS ALPHA
RIGHT SIDE

(B)MACH = .25 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
RVR711	○	0A232 RA .2A AND RA.2P/S SIDE PROBES COMBINED	.000	.000
RVR712	□	0A232 RA .2A AND RA.2P/S SIDE PROBES COMBINED	2.000	.000

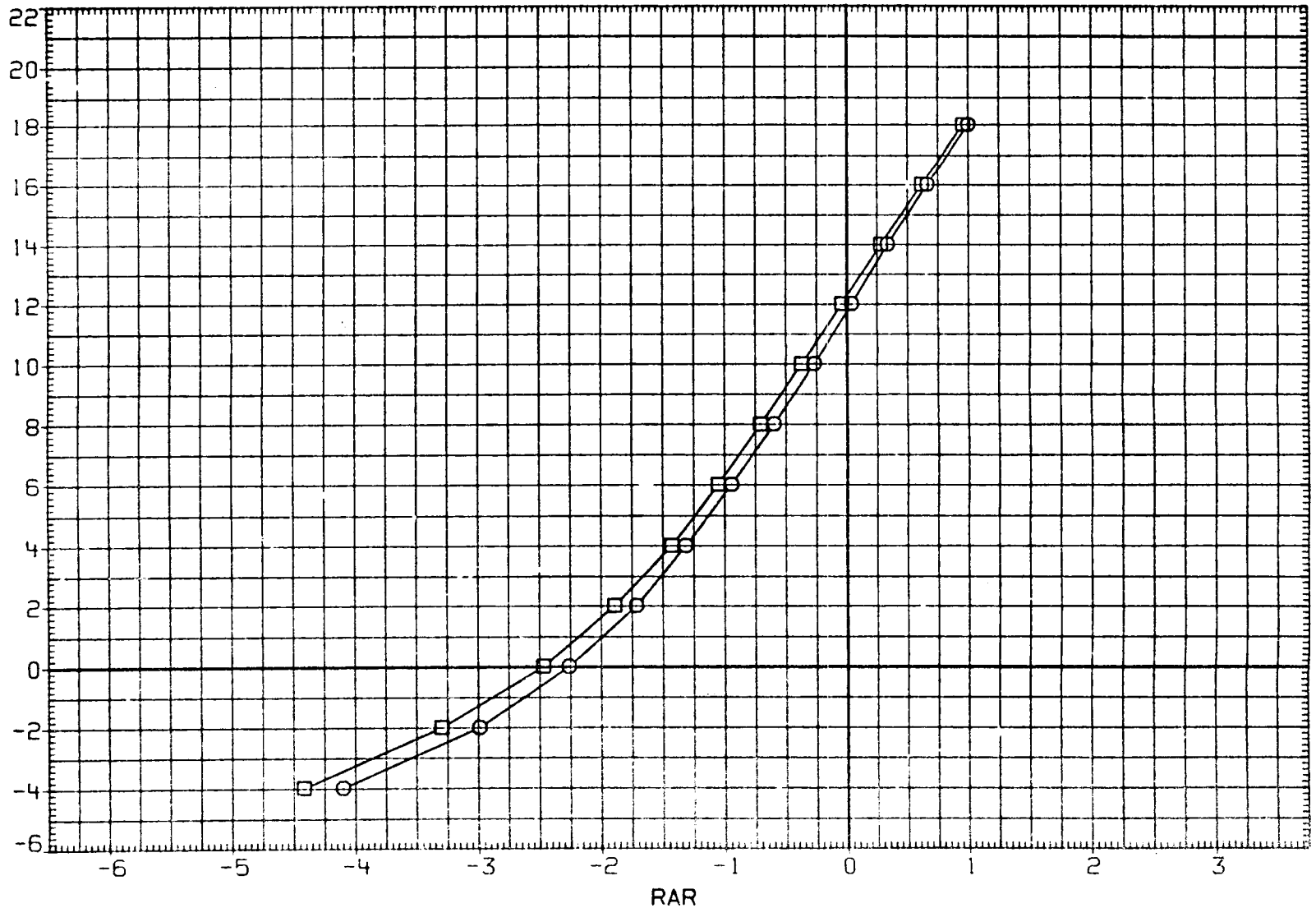


FIG. 72 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS ALPHA
RIGHT SIDE

(C)MACH = .40 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
RVR711	○	0A232 RA .2A AND RA.2P/S SIDE PROBES COMBINED	.000	.000
RVR712	□	0A232 RA .2A AND RA.2P/S SIDE PROBES COMBINED	2.000	.000

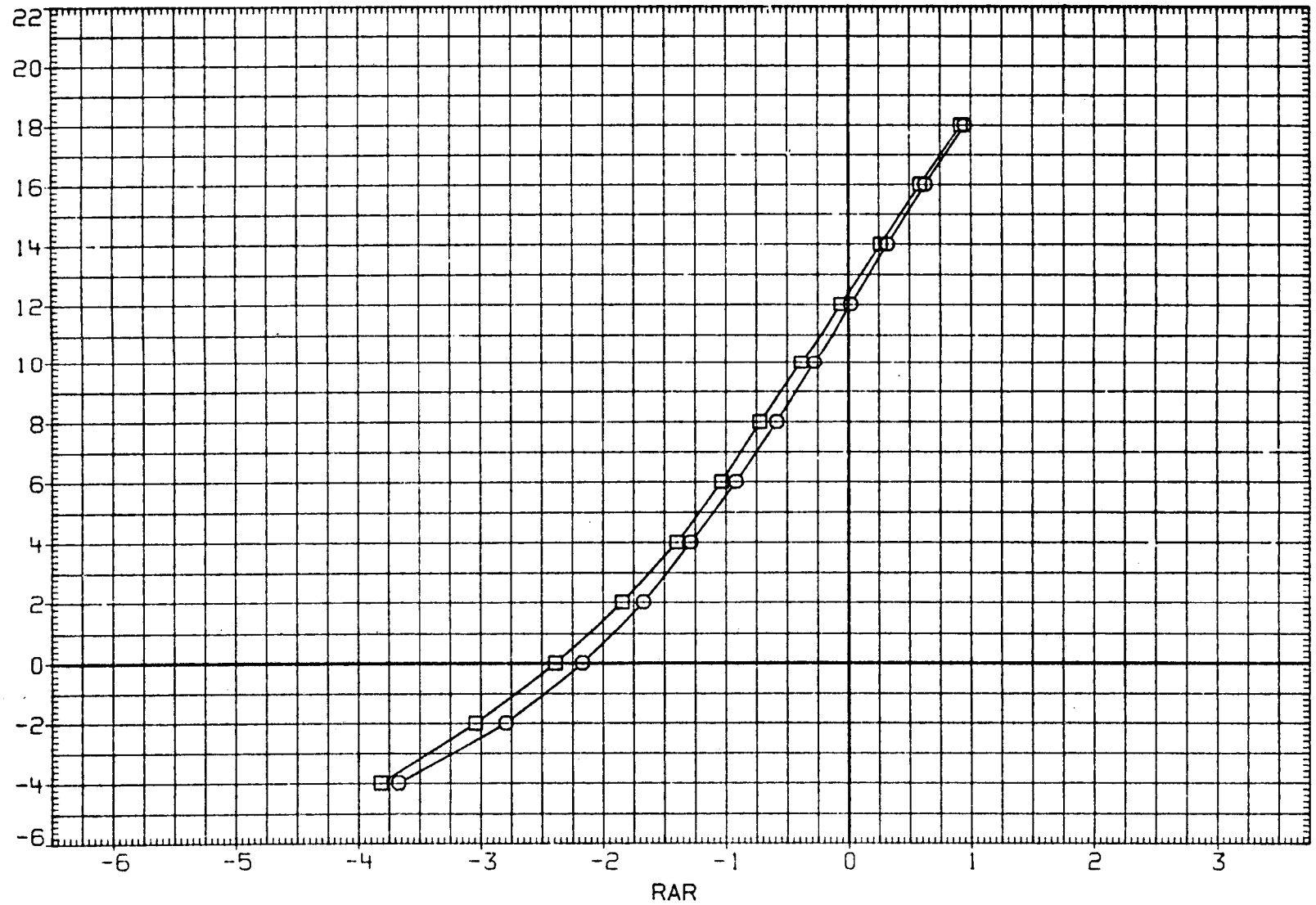


FIG. 72 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS ALPHA RIGHT SIDE

(D)MACH = .60 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
RVR711	○	0A232 RA .2A AND RA.2P/S SIDE PROBES COMBINED	.000	.000
RVR712	□	0A232 RA .2A AND RA.2P/S SIDE PROBES COMBINED	2.000	.000

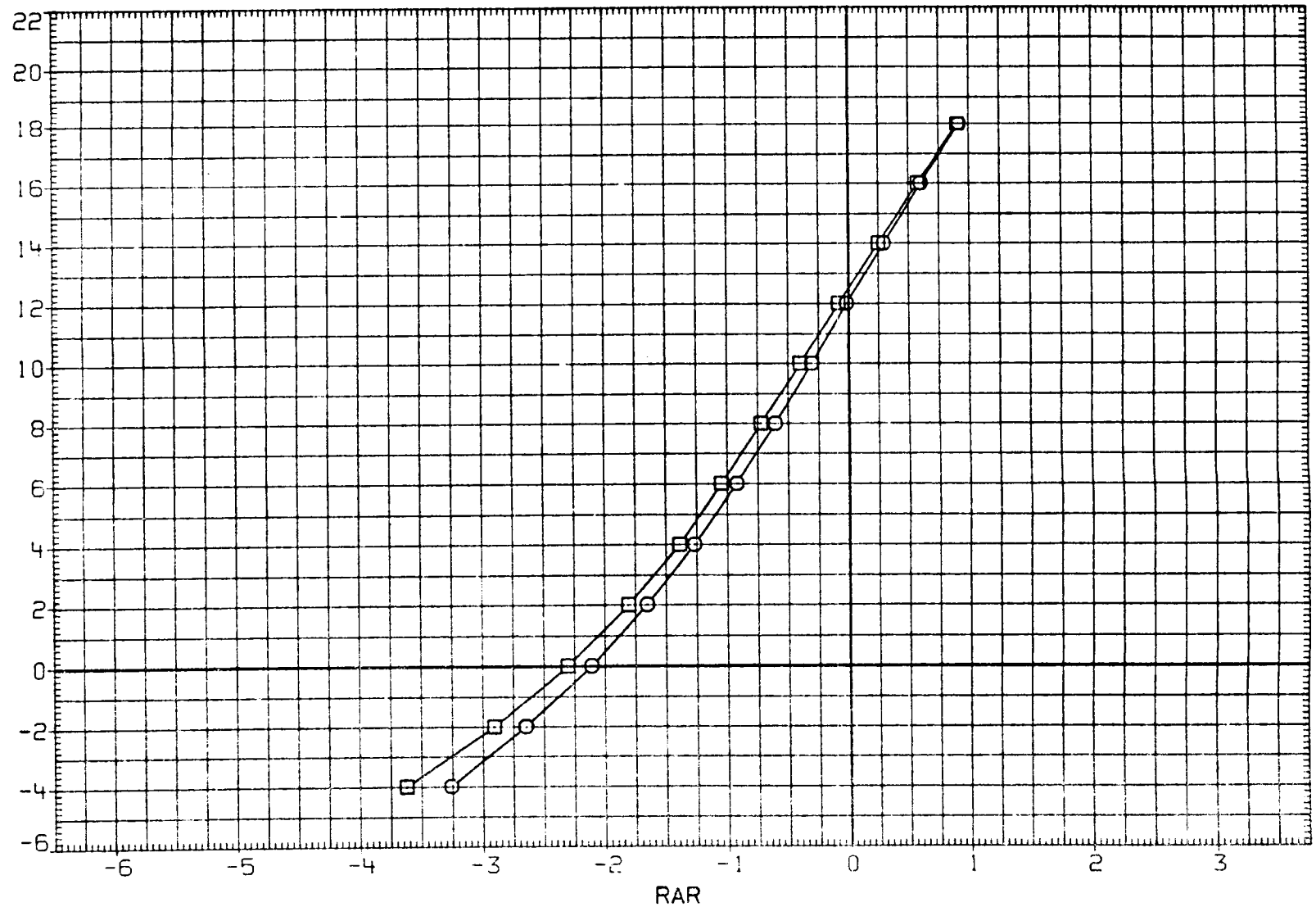


FIG. 72 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS ALPHA
RIGHT SIDE

(E)MACH = .70 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
RVR711	○	0A232 RA .2A AND RA.2P/S SIDE PROBES COMBINED	.000	.000
RVR712	□	0A232 RA .2A AND RA.2P/S SIDE PROBES COMBINED	2.000	.000

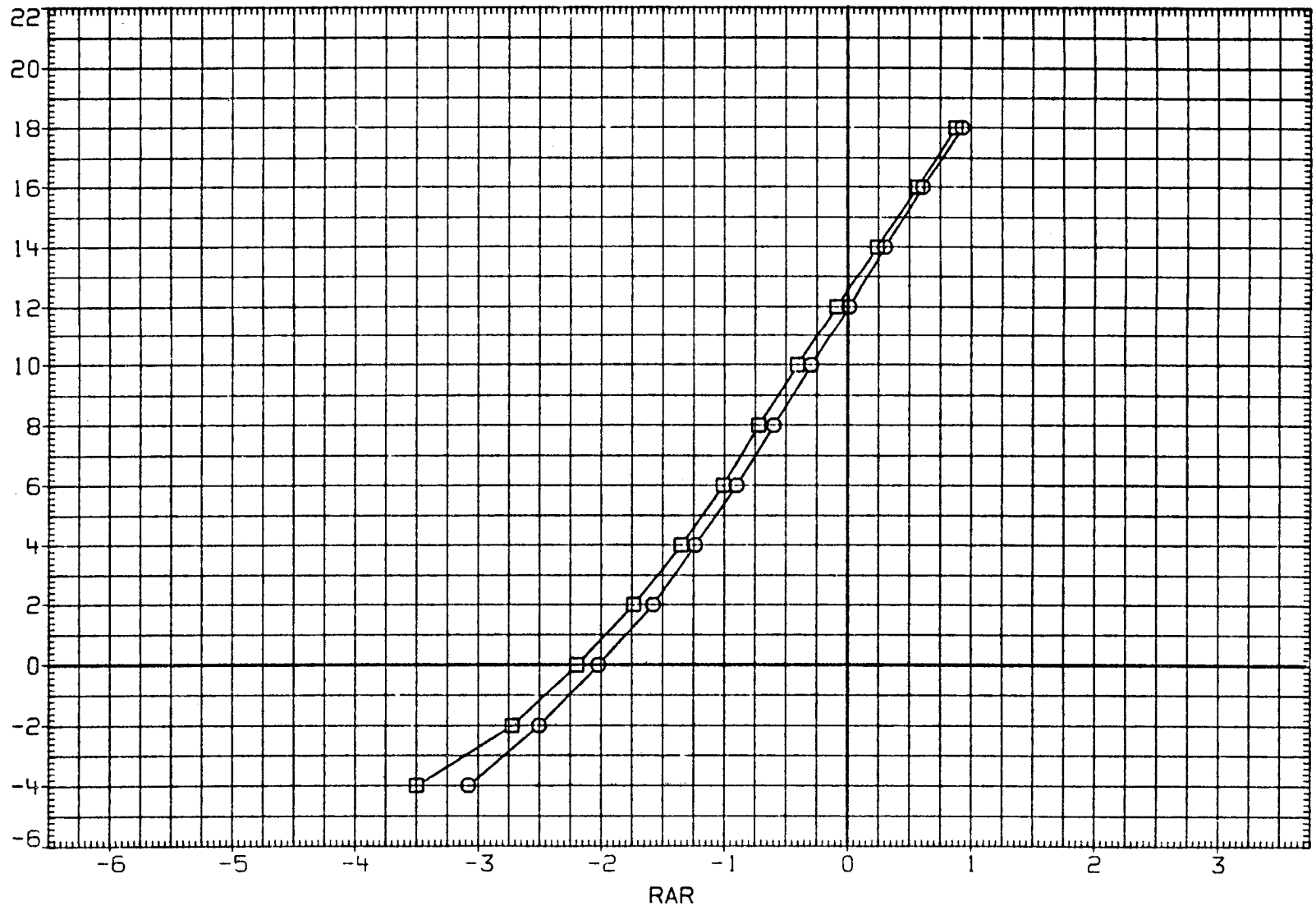


FIG. 72 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS ALPHA
RIGHT SIDE

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
RVR711	○	0A232 RA .2A AND RA.2P/S SIDE PROBES COMBINED	.000	.000
RVR712	□	0A232 RA .2A AND RA.2P/S SIDE PROBES COMBINED	2.000	.000

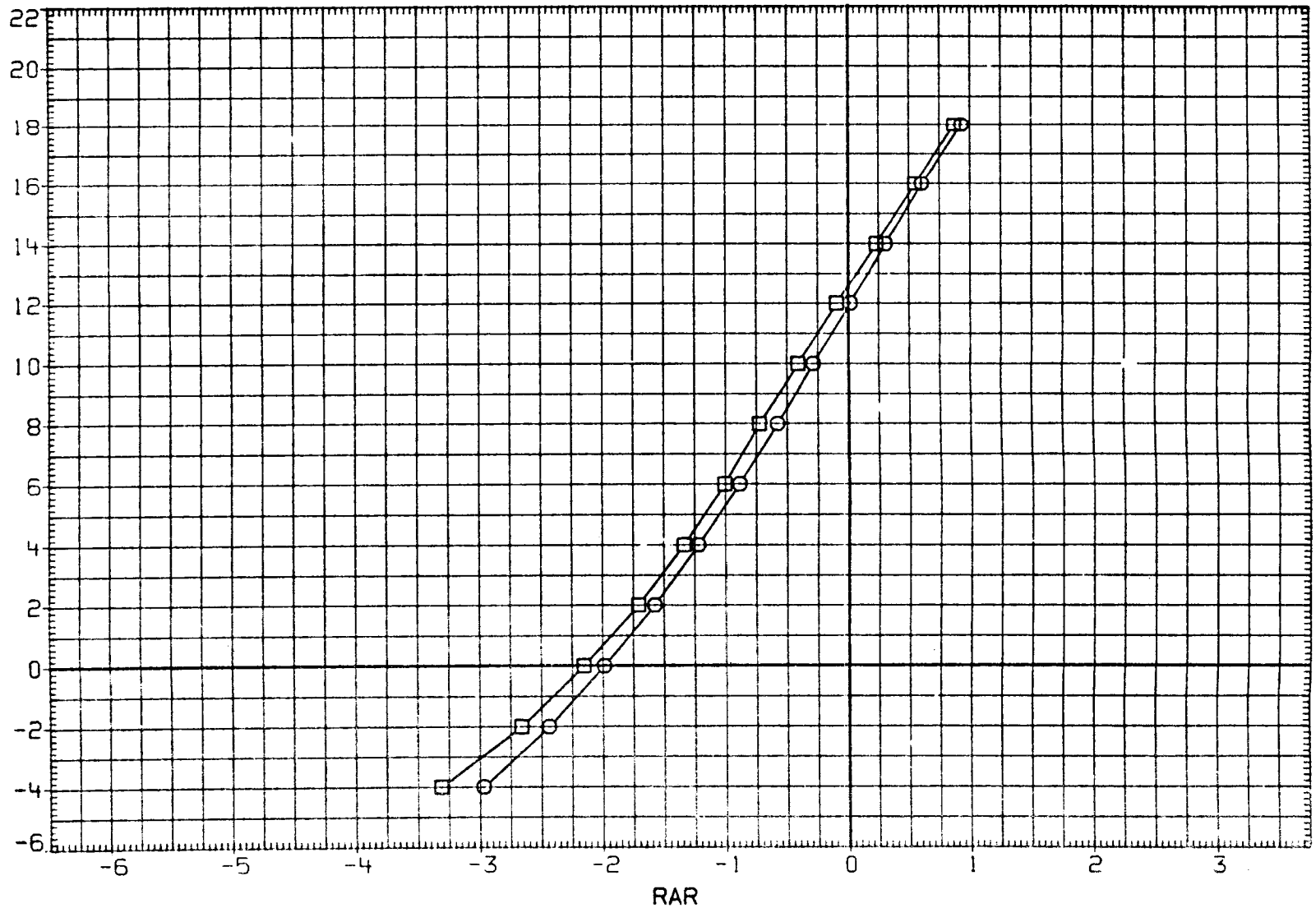


FIG. 72 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS ALPHA
RIGHT SIDE

(G)MACH = .85 DATE 10 AUG 73

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
RVR711	○	0A232 RA .2A AND RA.2P/S SIDE PROBES COMBINED	.000	.000
RVR712	□	0A232 RA .2A AND RA.2P/S SIDE PROBES COMBINED	2.000	.000

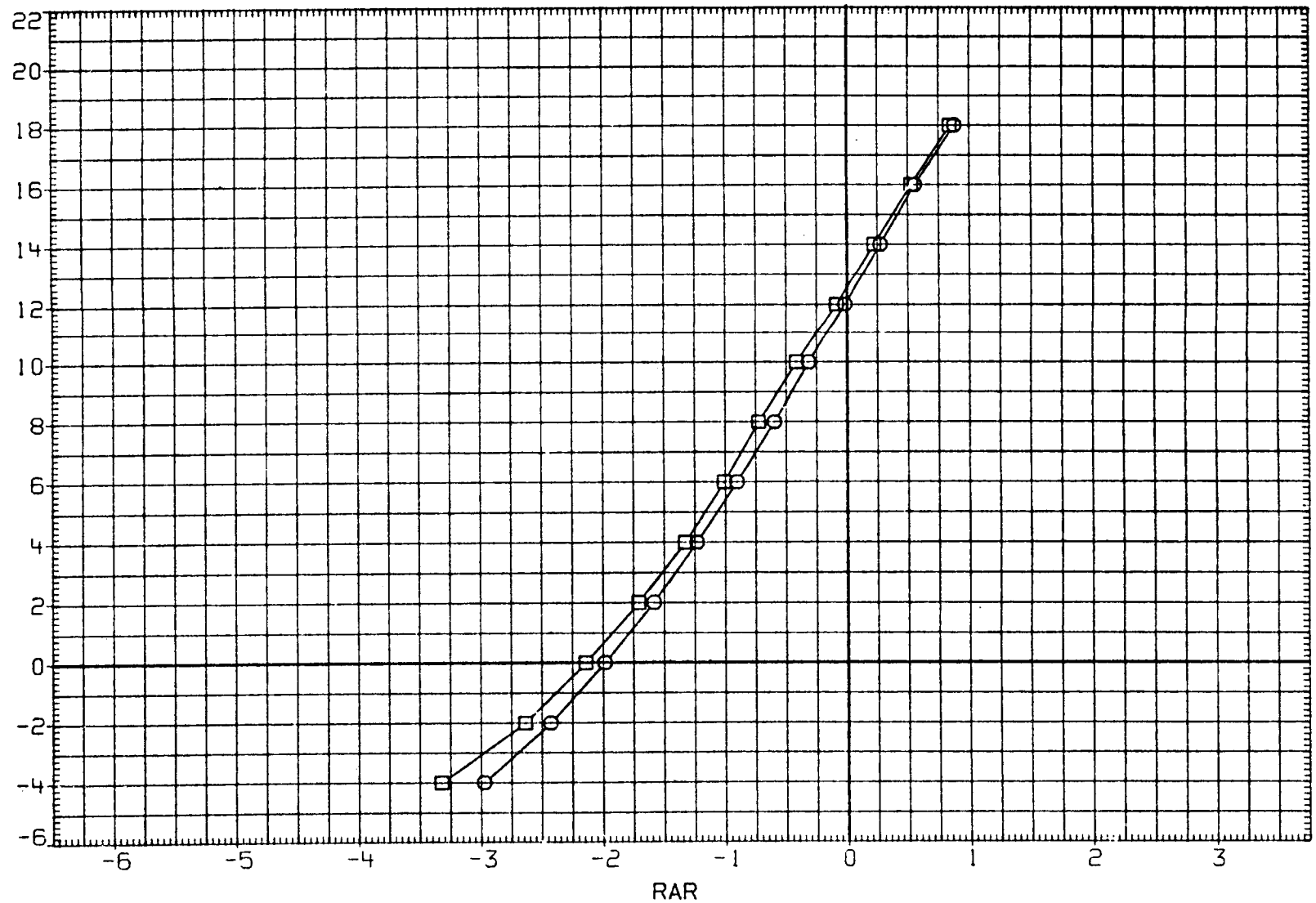


FIG. 72 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS ALPHA
RIGHT SIDE

(H)MACH = .90 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
RVR711	○	0A232 RA .2A AND RA.2P/S SIDE PROBES COMBINED	.000	.000
RVR712	□	0A232 RA .2A AND RA.2P/S SIDE PROBES COMBINED	2.000	.000

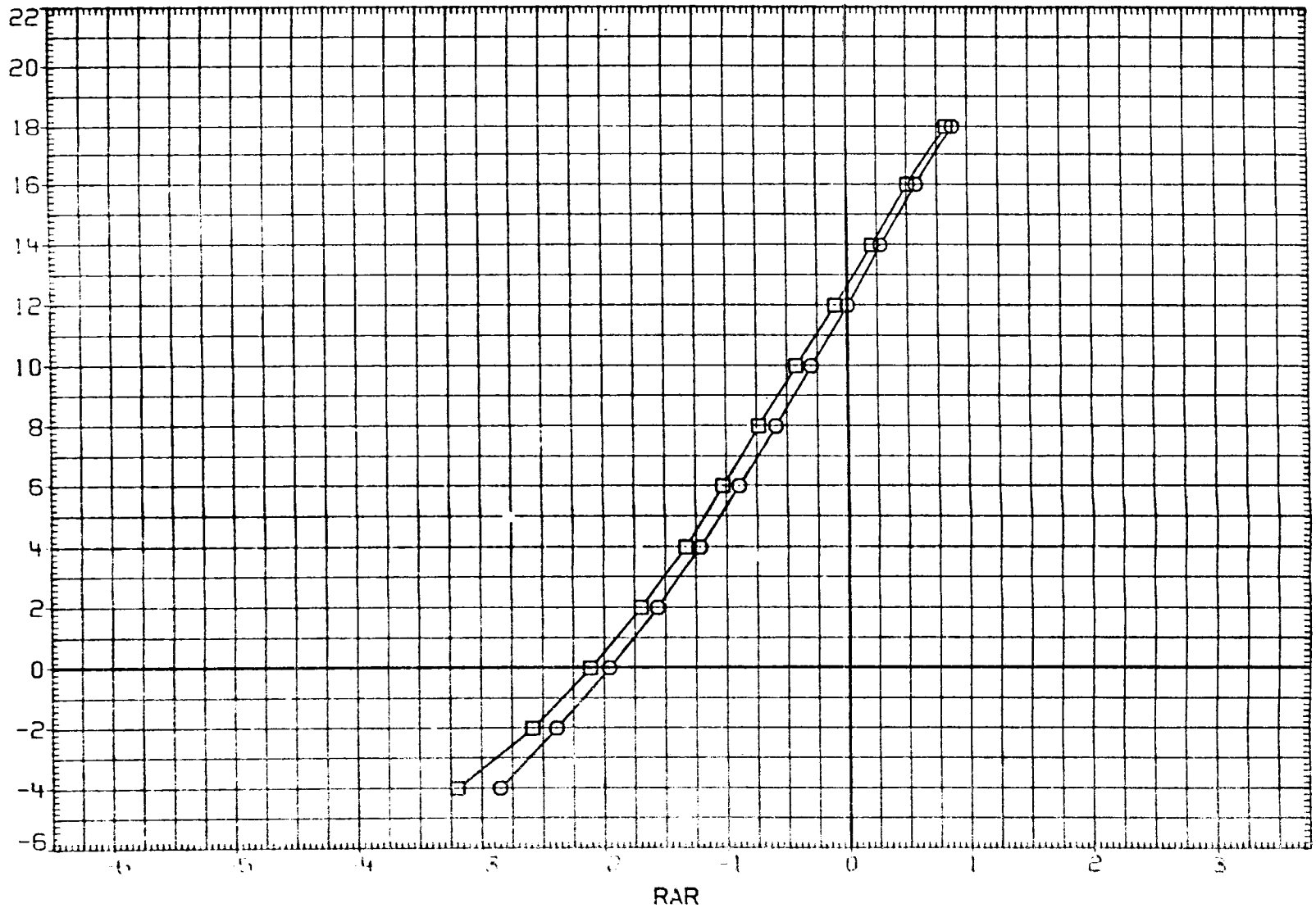


FIG. 72 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS ALPHA
RIGHT SIDE

(I)MACH = .95 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
RVR711	○	0A232 RA .2A AND RA.2P/S SIDE PROBES COMBINED	.000	.000
RVR712	□	0A232 RA .2A AND RA.2P/S SIDE PROBES COMBINED	2.000	.000

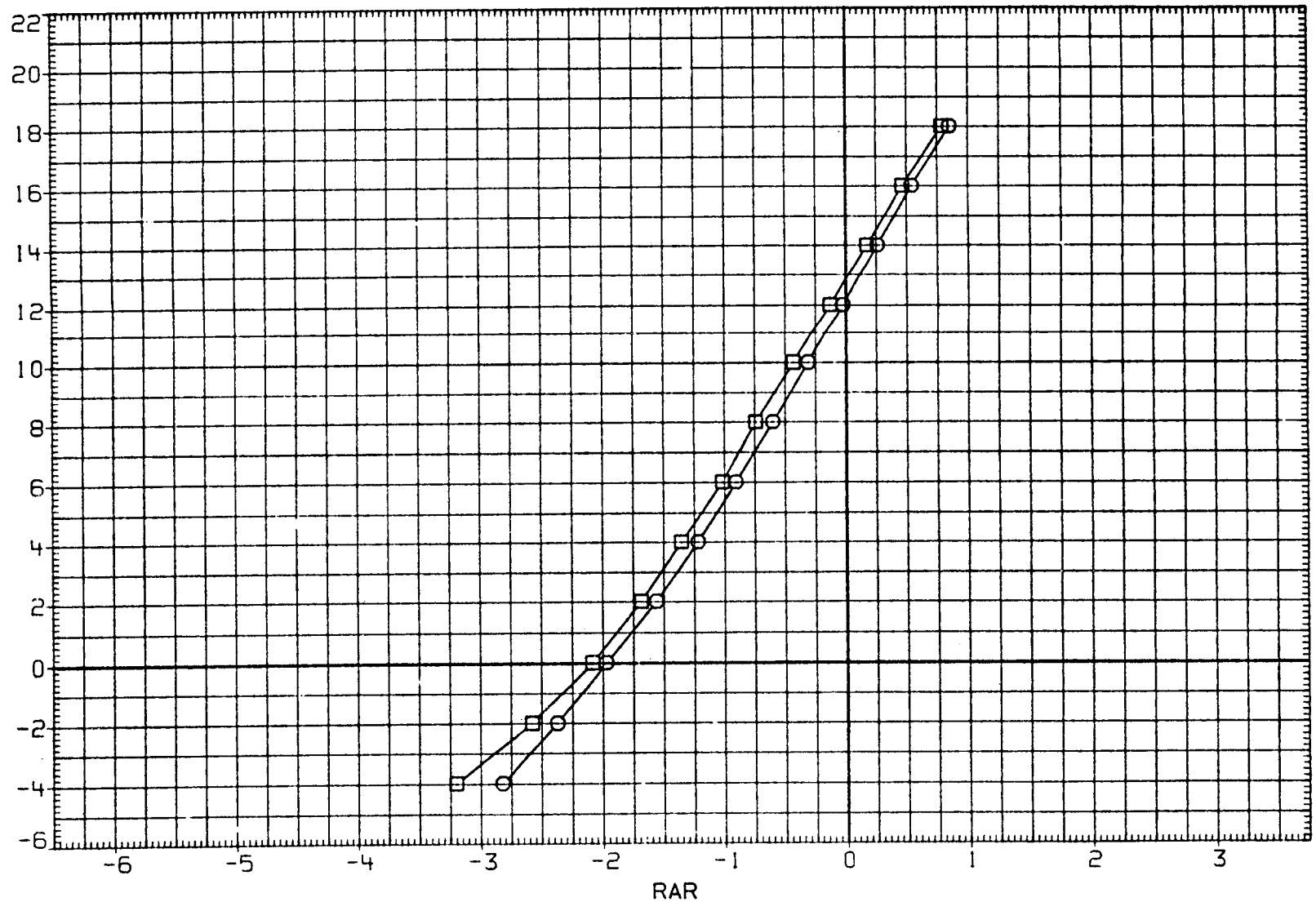


FIG. 72 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS ALPHA
RIGHT SIDE

(J)MACH = .98 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
RVR711	○	0A232 RA .2A AND RA.2P/S SIDE PROBES COMBINED	.000	.000
RVR712	□	0A232 RA .2A AND RA.2P/S SIDE PROBES COMBINED	2.000	.000

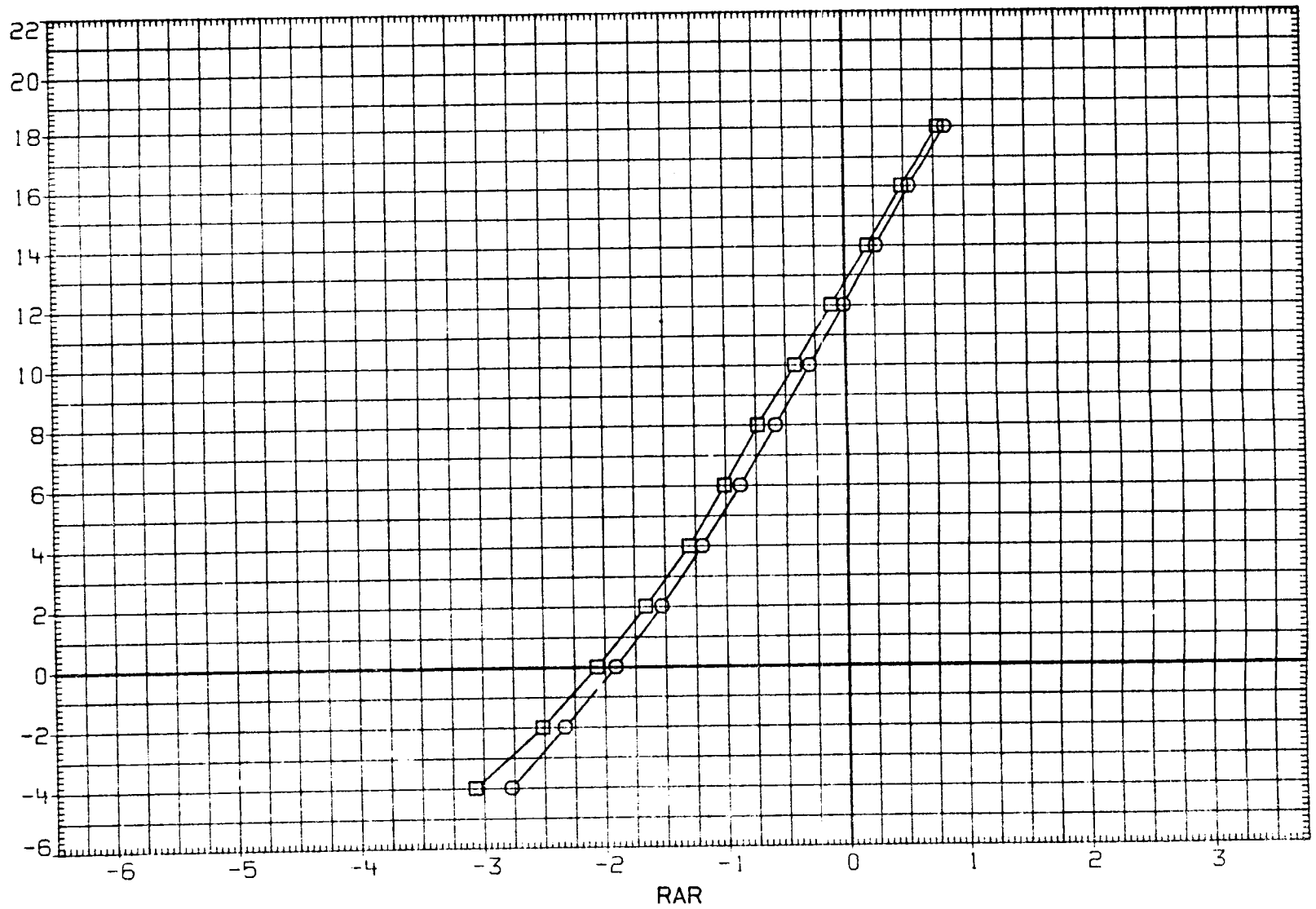


FIG. 72 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS ALPHA
RIGHT SIDE

(K)MACH = 1.05 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
RVR711	○	0A232 RA .2A AND RA.2P/S SIDE PROBES COMBINED	.000	.000
RVR712	□	0A232 RA .2A AND RA.2P/S SIDE PROBES COMBINED	2.000	.000

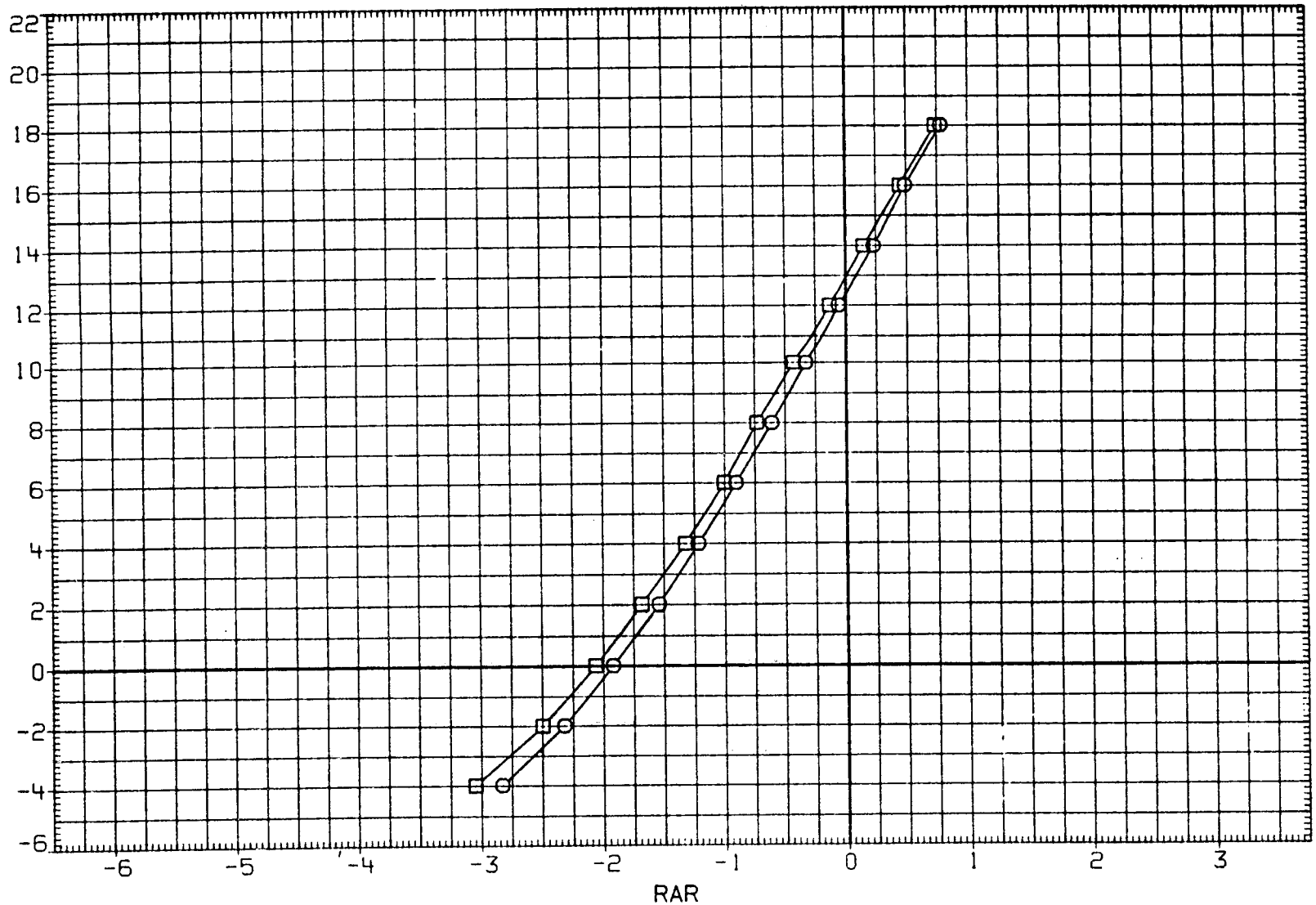


FIG. 72 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS ALPHA
RIGHT SIDE

(L)MACH = 1.10 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
RVR711	○	0A232 RA .2A AND RA.2P/S SIDE PROBES COMBINED	.000	.000
RVR712	□	0A232 RA .2A AND RA.2P/S SIDE PROBES COMBINED	2.000	.000

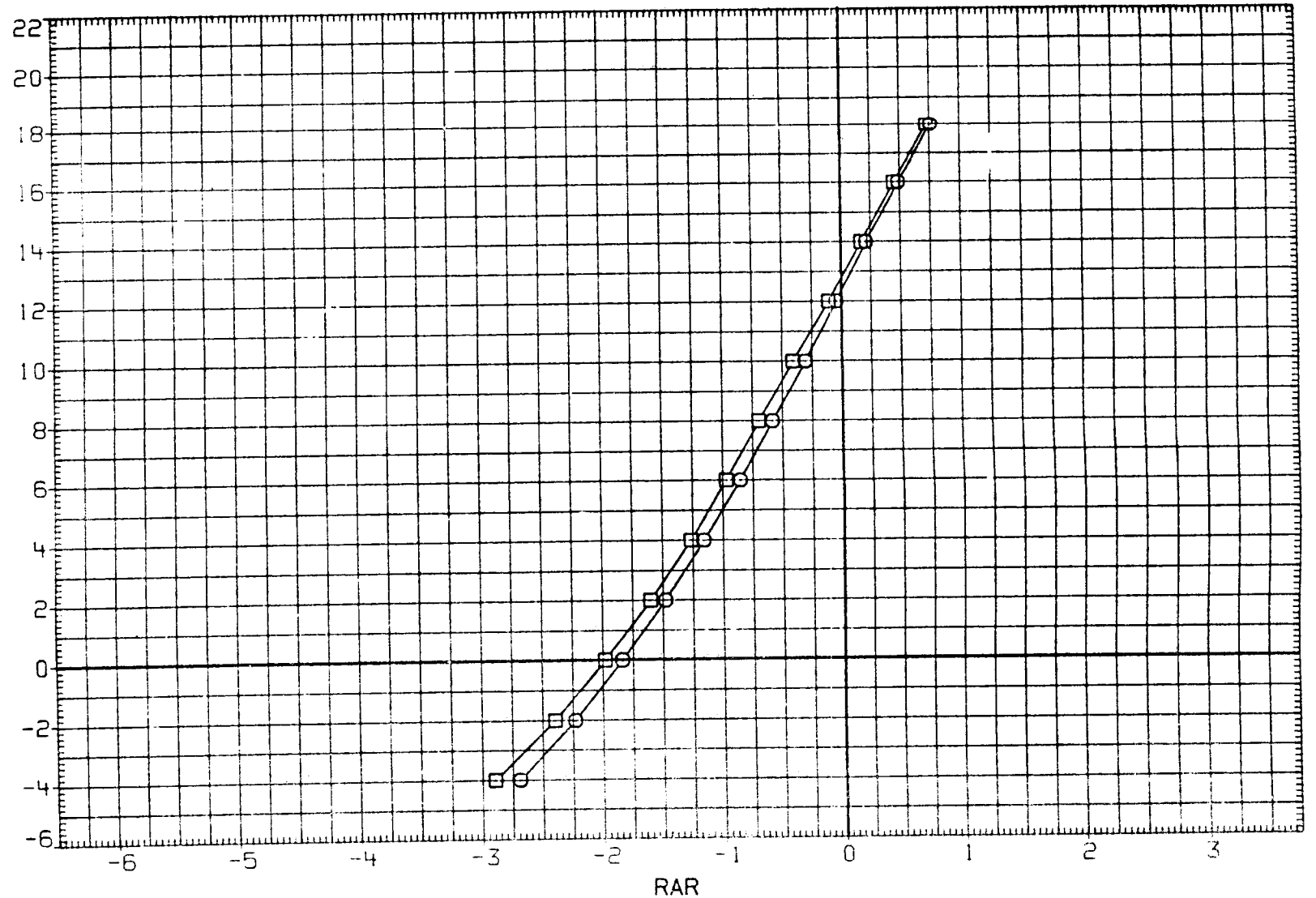


FIG. 72 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS ALPHA
RIGHT SIDE

(M)MACH = 1.15 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
RVR711	○	0A232 RA .2A AND RA.2P/S SIDE PROBES COMBINED	.000	.000
RVR712	□	0A232 RA .2A AND RA.2P/S SIDE PROBES COMBINED	2.000	.000

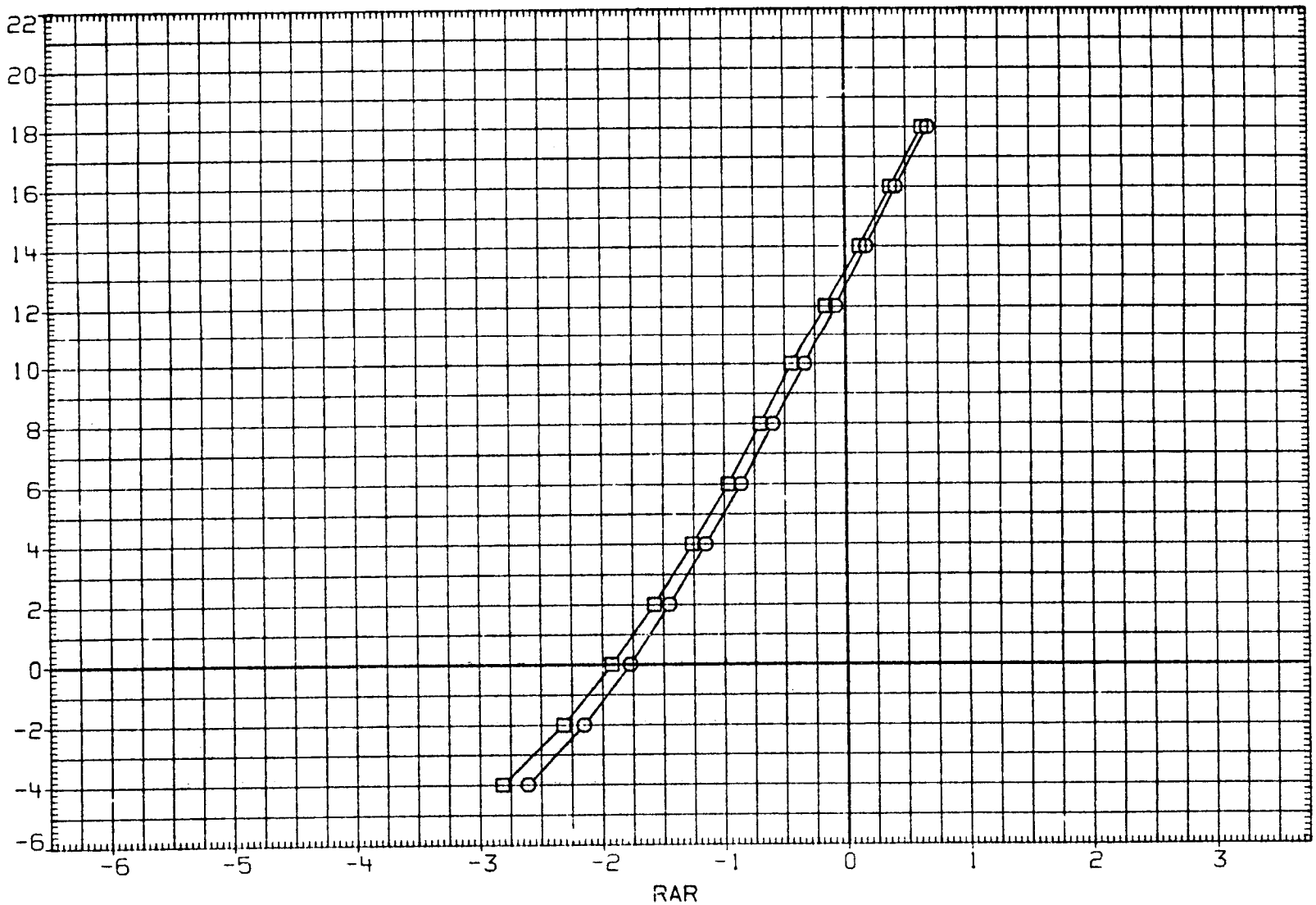


FIG. 72 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS ALPHA
RIGHT SIDE

(N)MACH = 1.20 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
RVR711	○	0A232 RA .2A AND RA.2P/S SIDE PROBES COMBINED	.000	.000
RVR712	□	0A232 RA .2A AND RA.2P/S SIDE PROBES COMBINED	2.000	.000

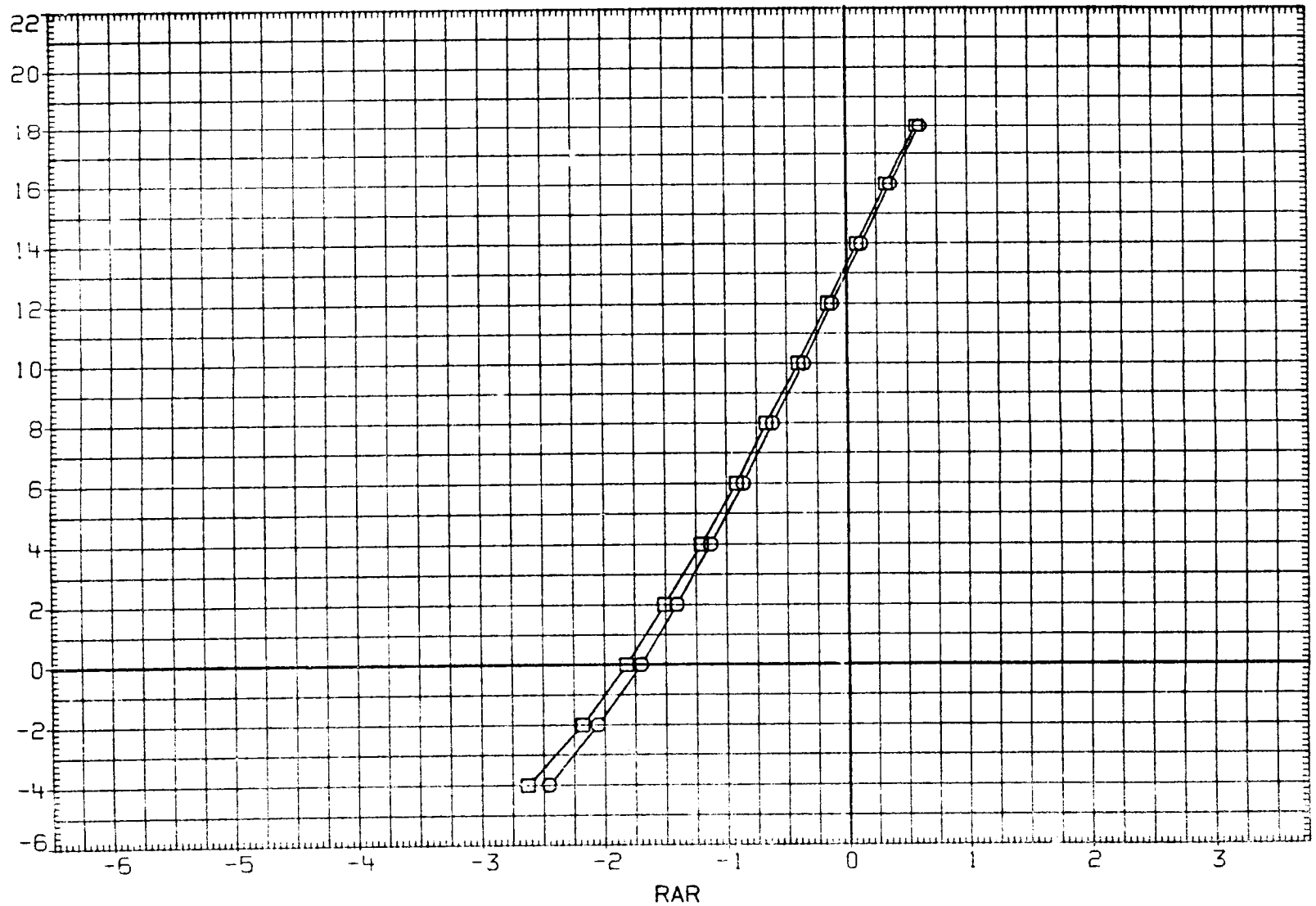


FIG. 72 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS ALPHA
RIGHT SIDE

(O) MACH = 1.30 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
RVR711	○	0A232 RA .2A AND RA.2P/S SIDE PROBES COMBINED	.000	.000
RVR712	□	0A232 RA .2A AND RA.2P/S SIDE PROBES COMBINED	2.000	.000

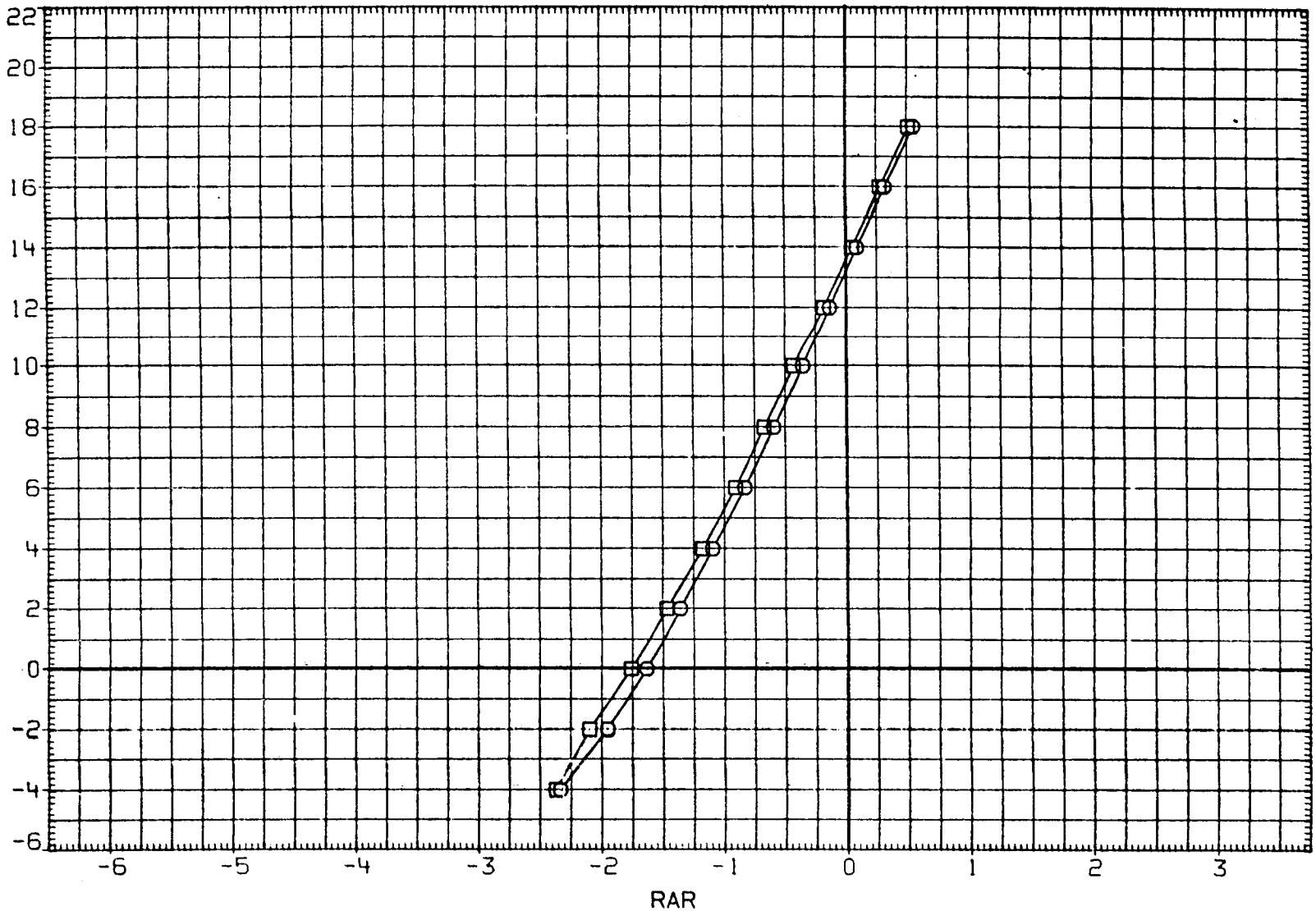


FIG. 72 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS ALPHA
RIGHT SIDE

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
RVR711	○	0A232 RA .2A AND RA.2P/S SIDE PROBES COMBINED	.000	.000
RVR712	□	0A232 RA .2A AND RA.2P/S SIDE PROBES COMBINED	2.000	.000

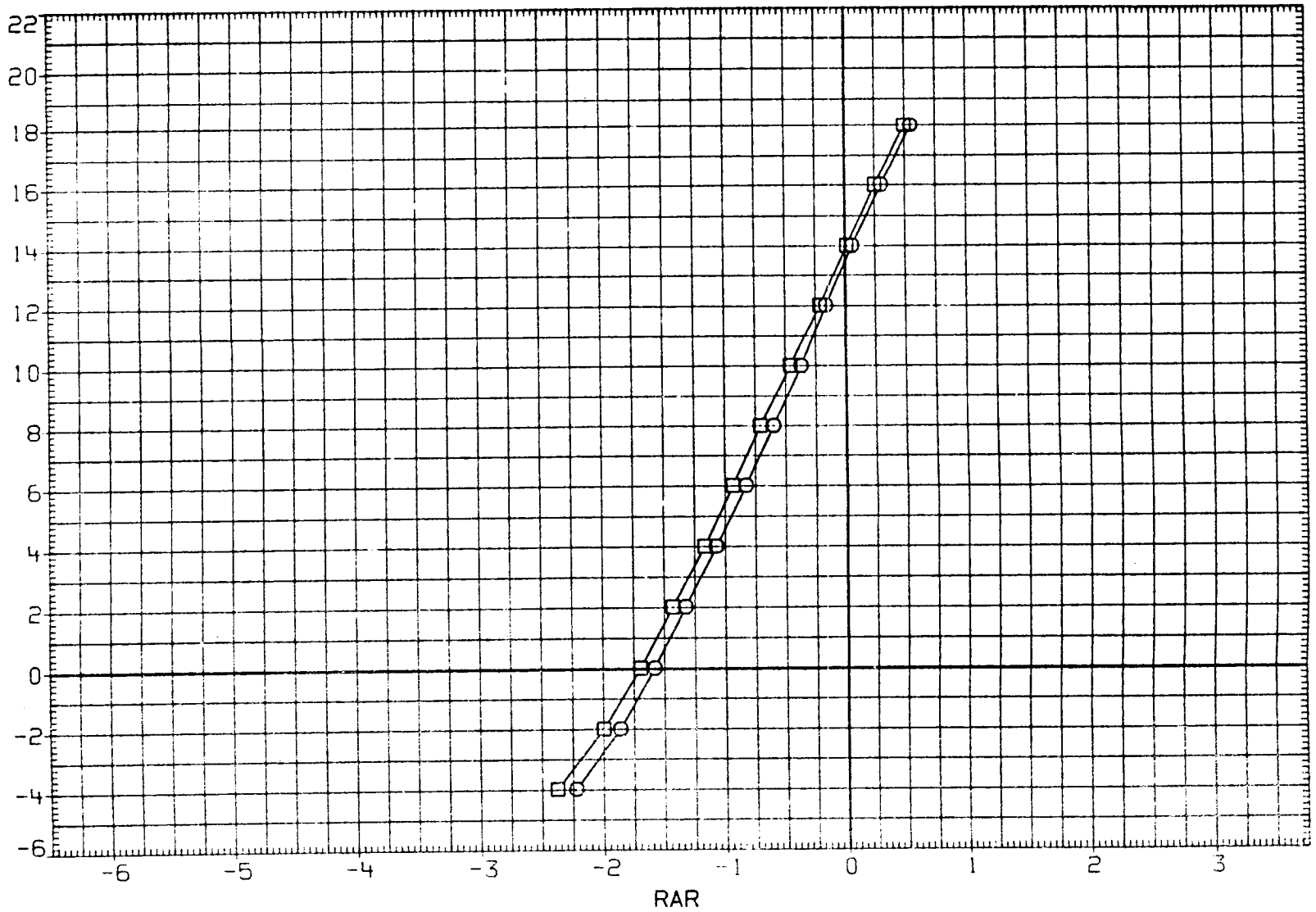


FIG. 72 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS ALPHA
RIGHT SIDE

(Q)MACH = 1.55 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA11	○	0A232 A .2A A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA12	□	0A232 A .2A A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

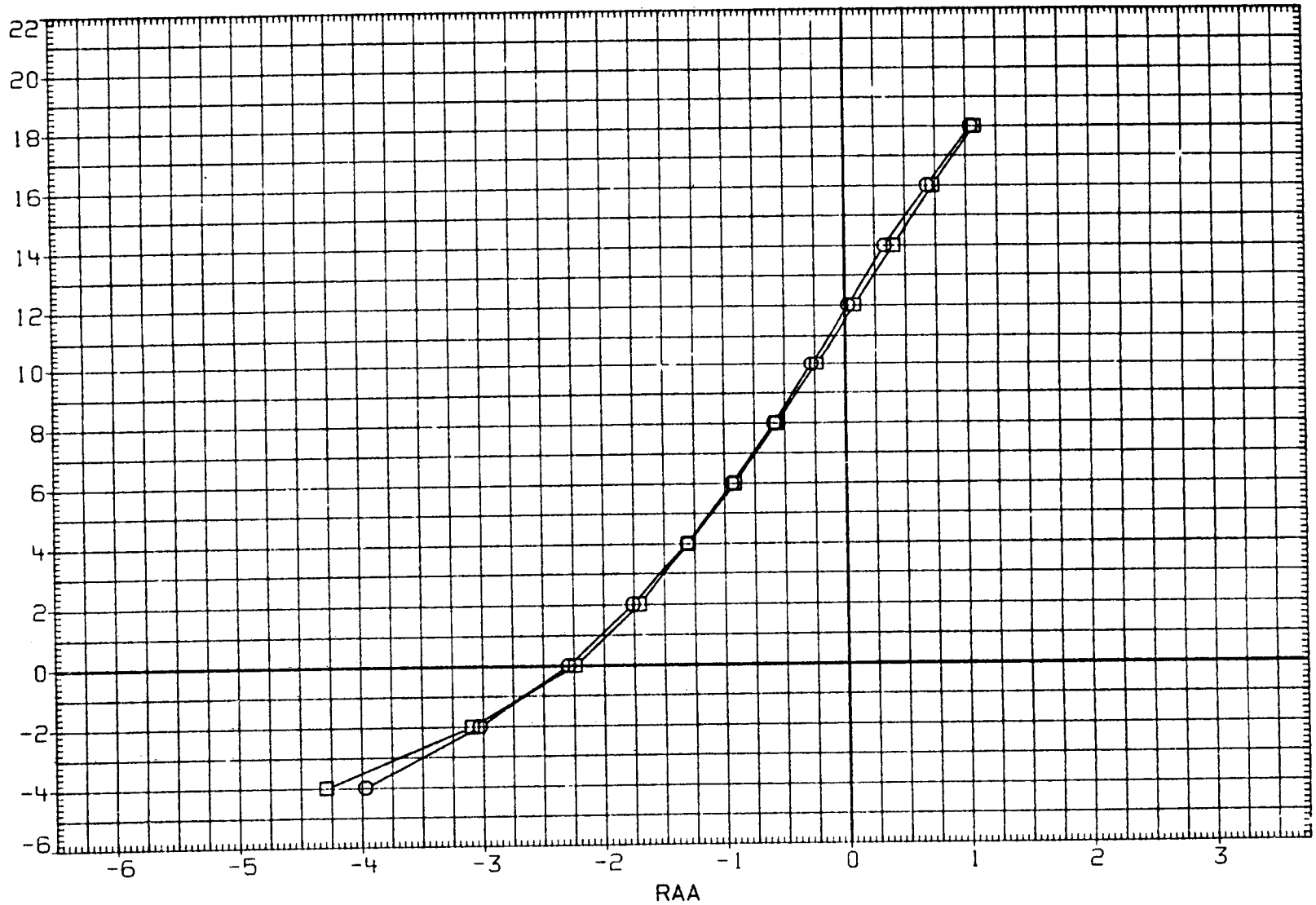


FIG. 73 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS ALPHA AVERAGED (L + R) / 2

(A)MACH = .20

DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA11	○	0A232 A .2A A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA12	□	0A232 A .2A A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

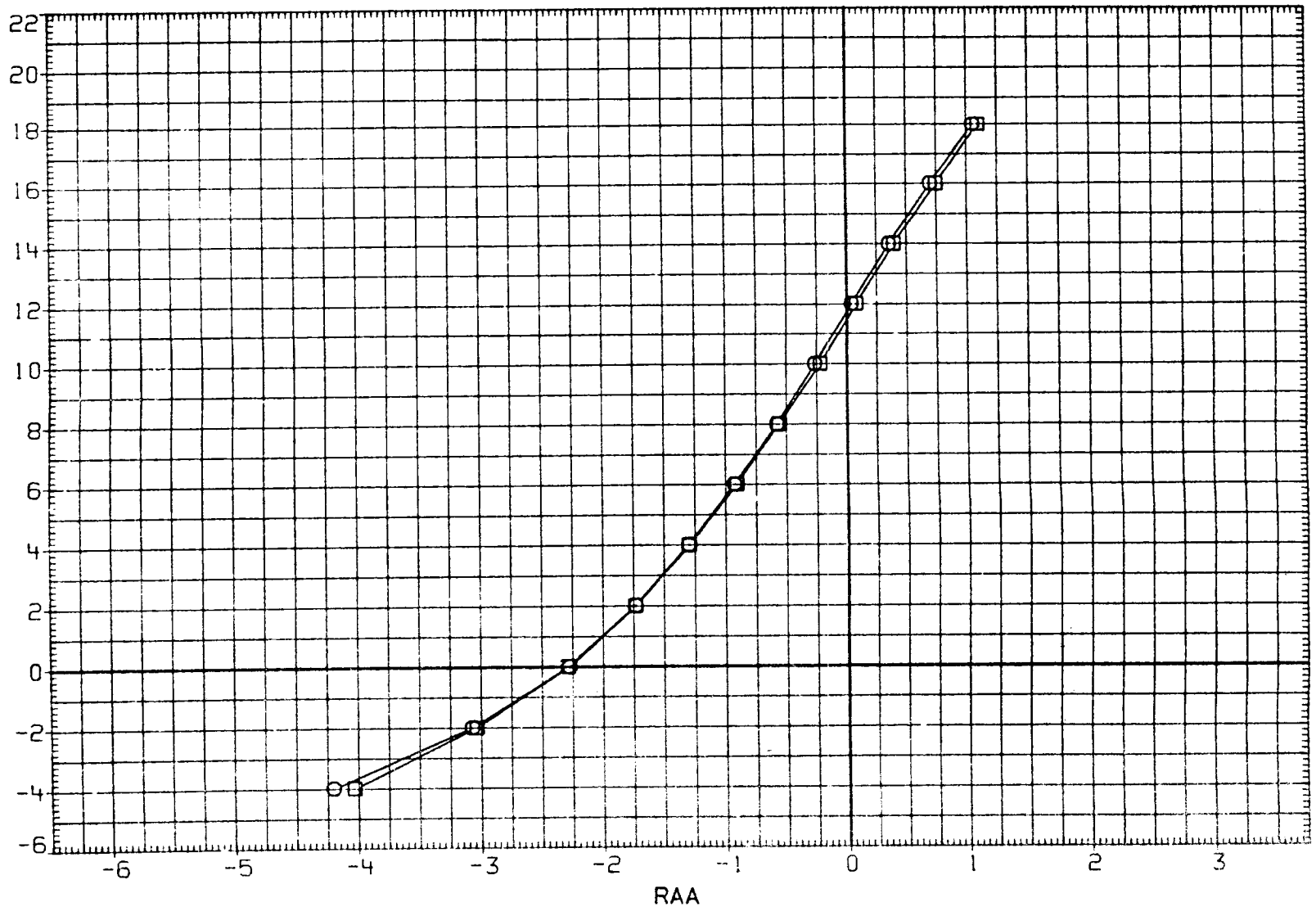


FIG. 73 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS ALPHA
AVERAGED (L + R) / 2

(B)MACH = .25

DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA11	○	OA232 A .2A A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA12	□	OA232 A .2A A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

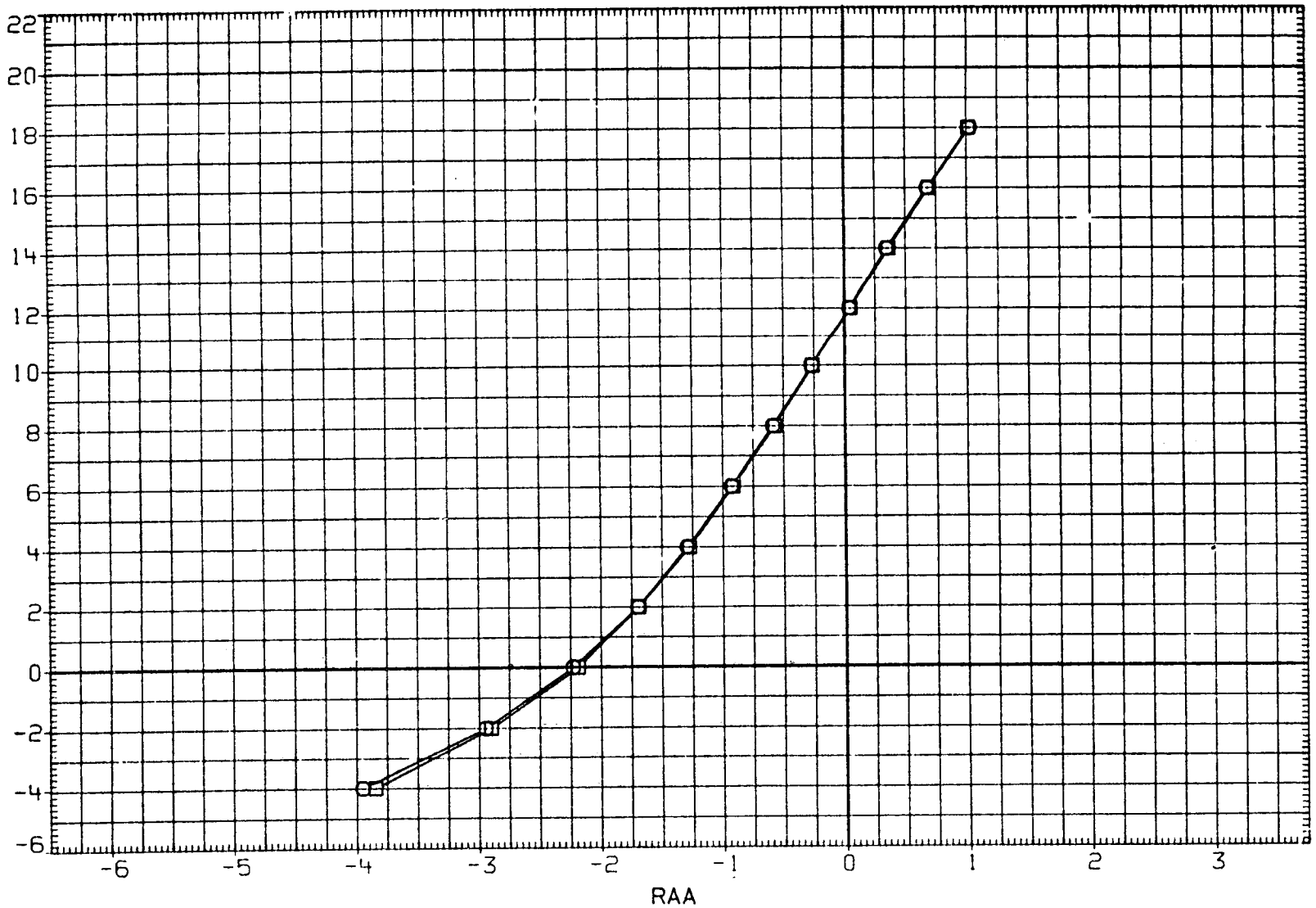


FIG. 73 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS ALPHA
AVERAGED (L + R) / 2

(C)MACH = .40 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA11	○	0A232 A .2A A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA12	□	0A232 A .2A A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

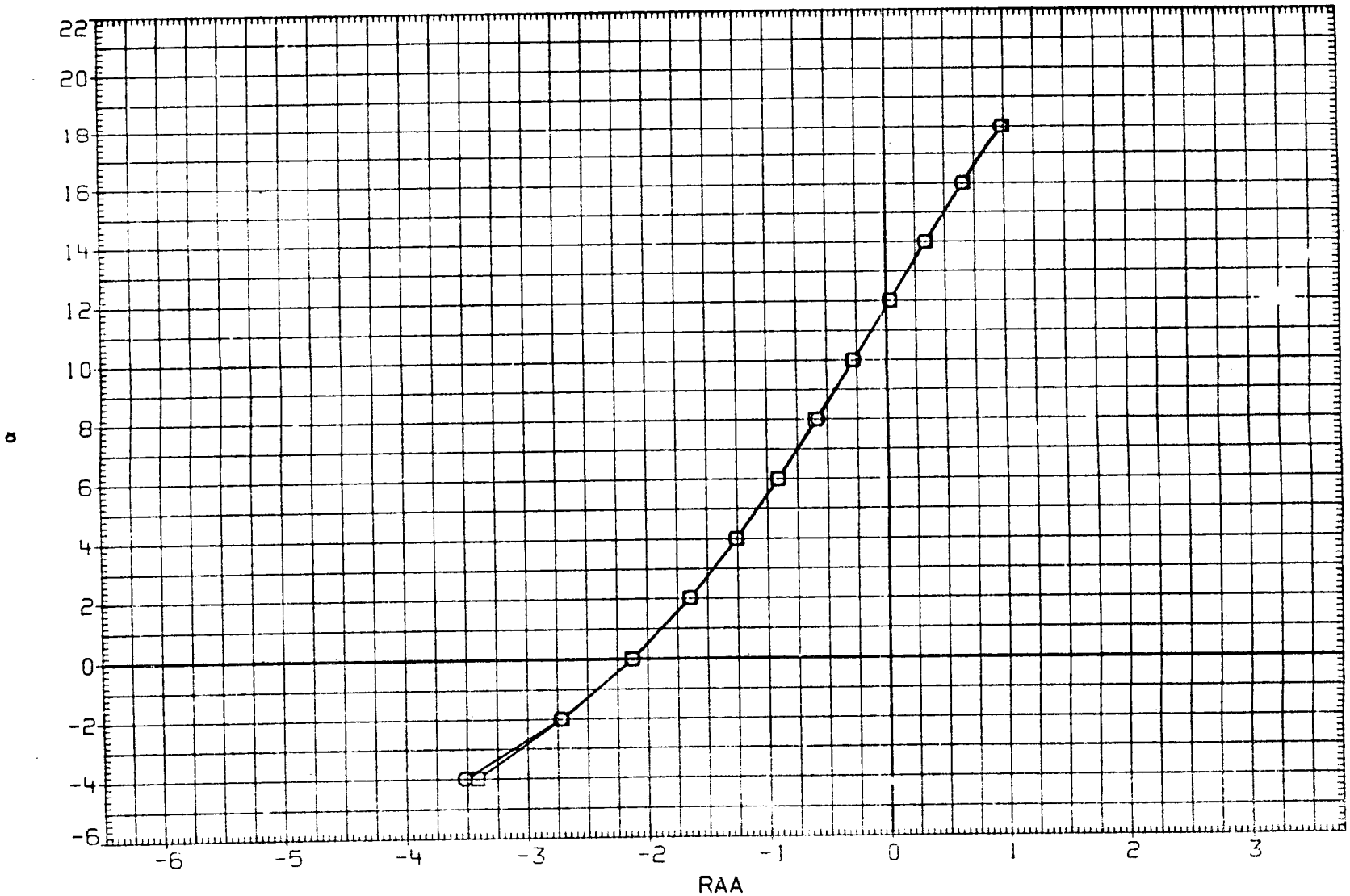


FIG. 73 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS ALPHA
AVERAGED (L + R) / 2

(D)MACH = .60

DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA11	○	0A232 A .2A A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA12	□	0A232 A .2A A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

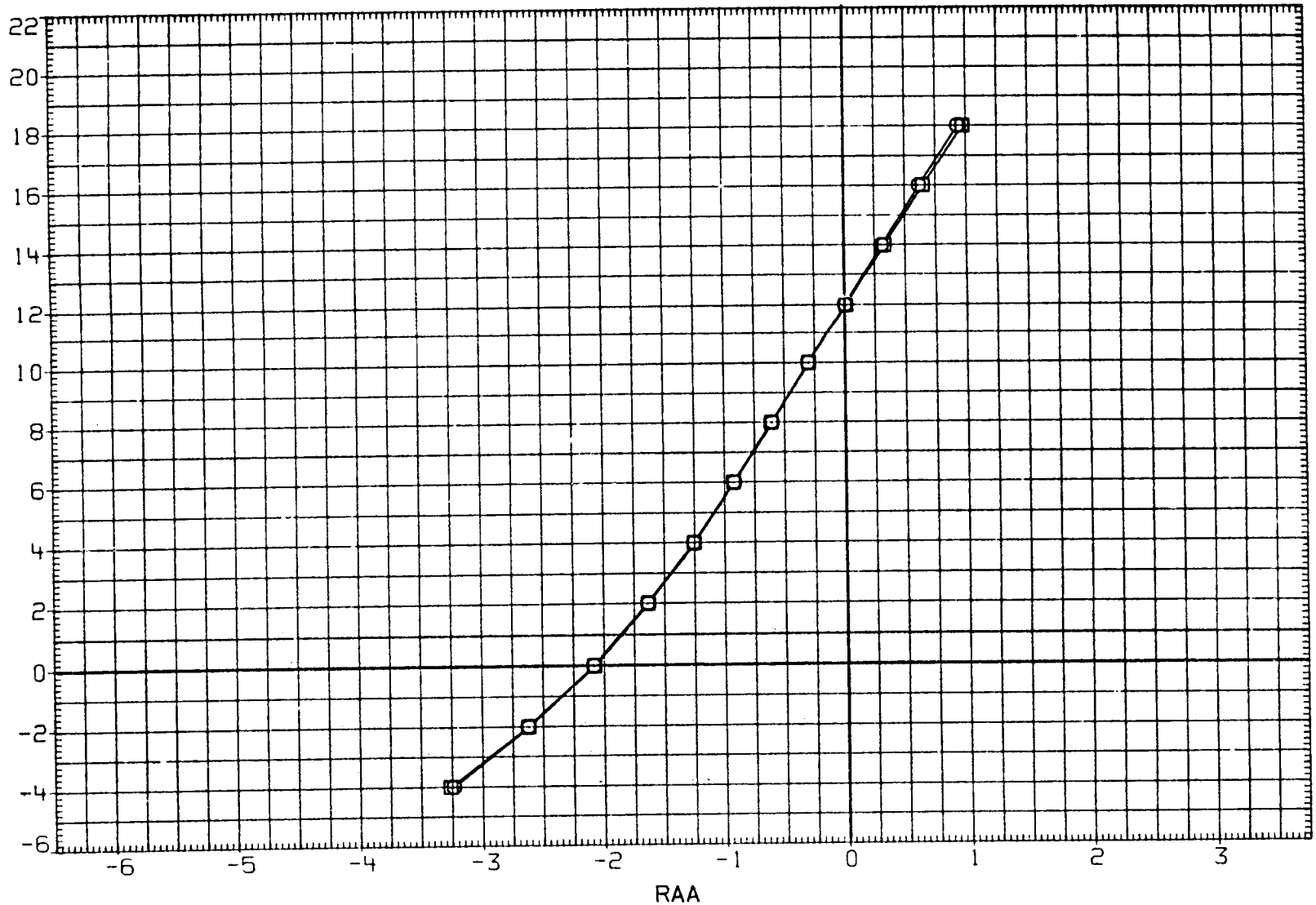


FIG. 73 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS ALPHA
AVERAGED (L + R) / 2

(E)MACH = .70 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA11	○	0A232 A .2A A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA12	□	0A232 A .2A A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

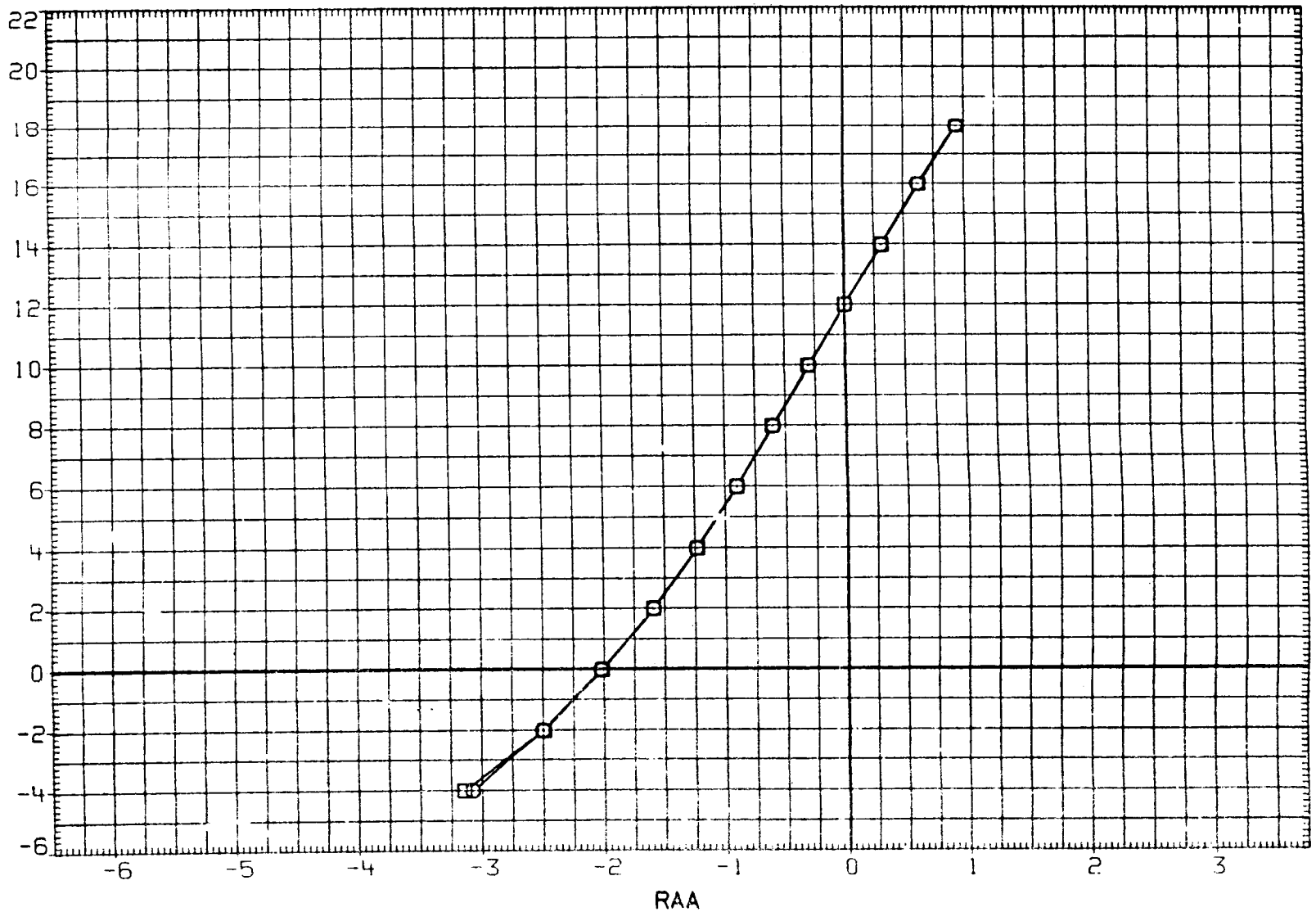


FIG. 73 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS ALPHA AVERAGED (L + R) / 2

(F)MACH = .80 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA11	○	0A232 A .2A A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA12	□	0A232 A .2A A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

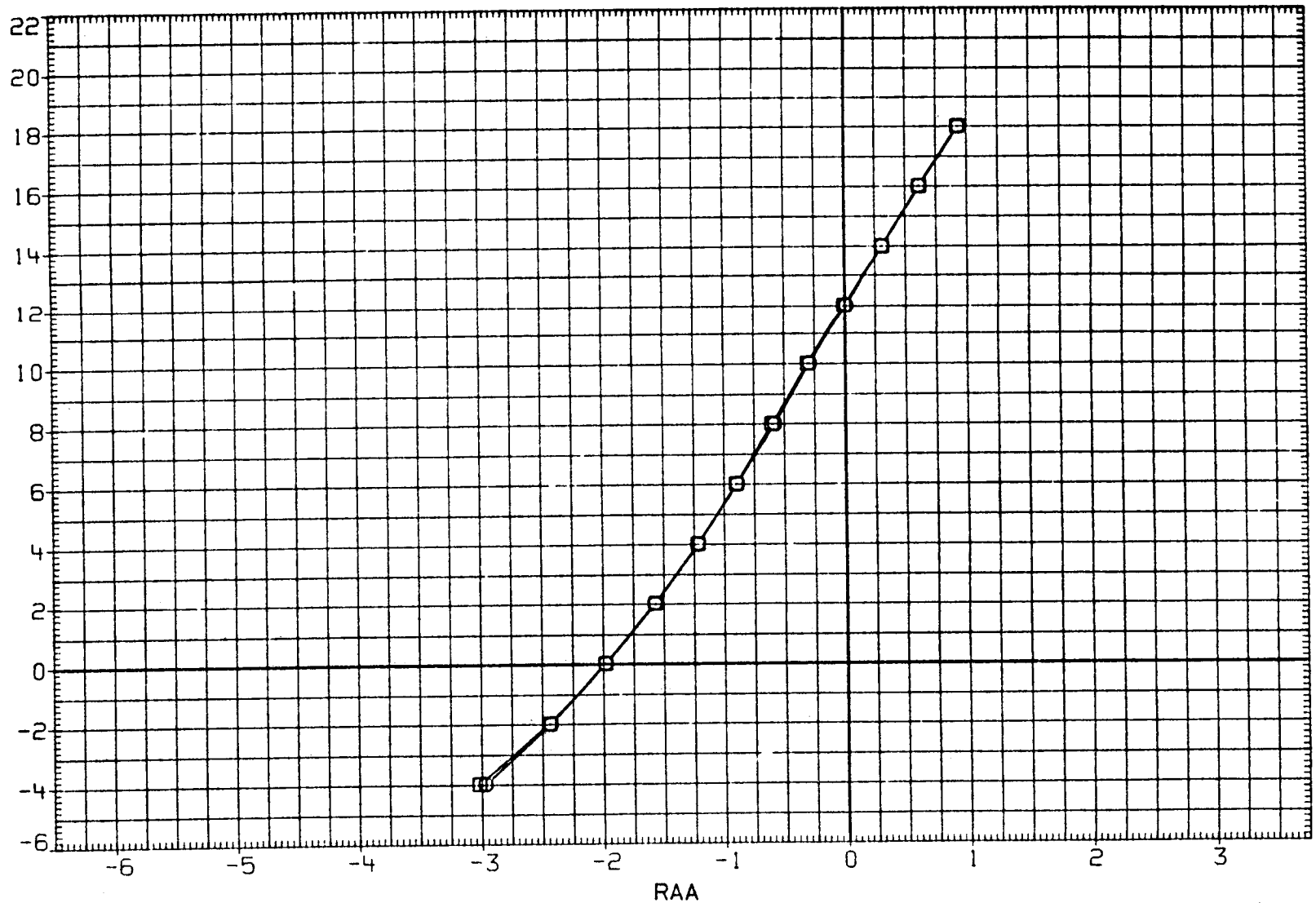


FIG. 73 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS ALPHA AVERAGED (L + R) / 2

(G)MACH = .85 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA11	○	0A232 A .2A A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA12	□	0A232 A .2A A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

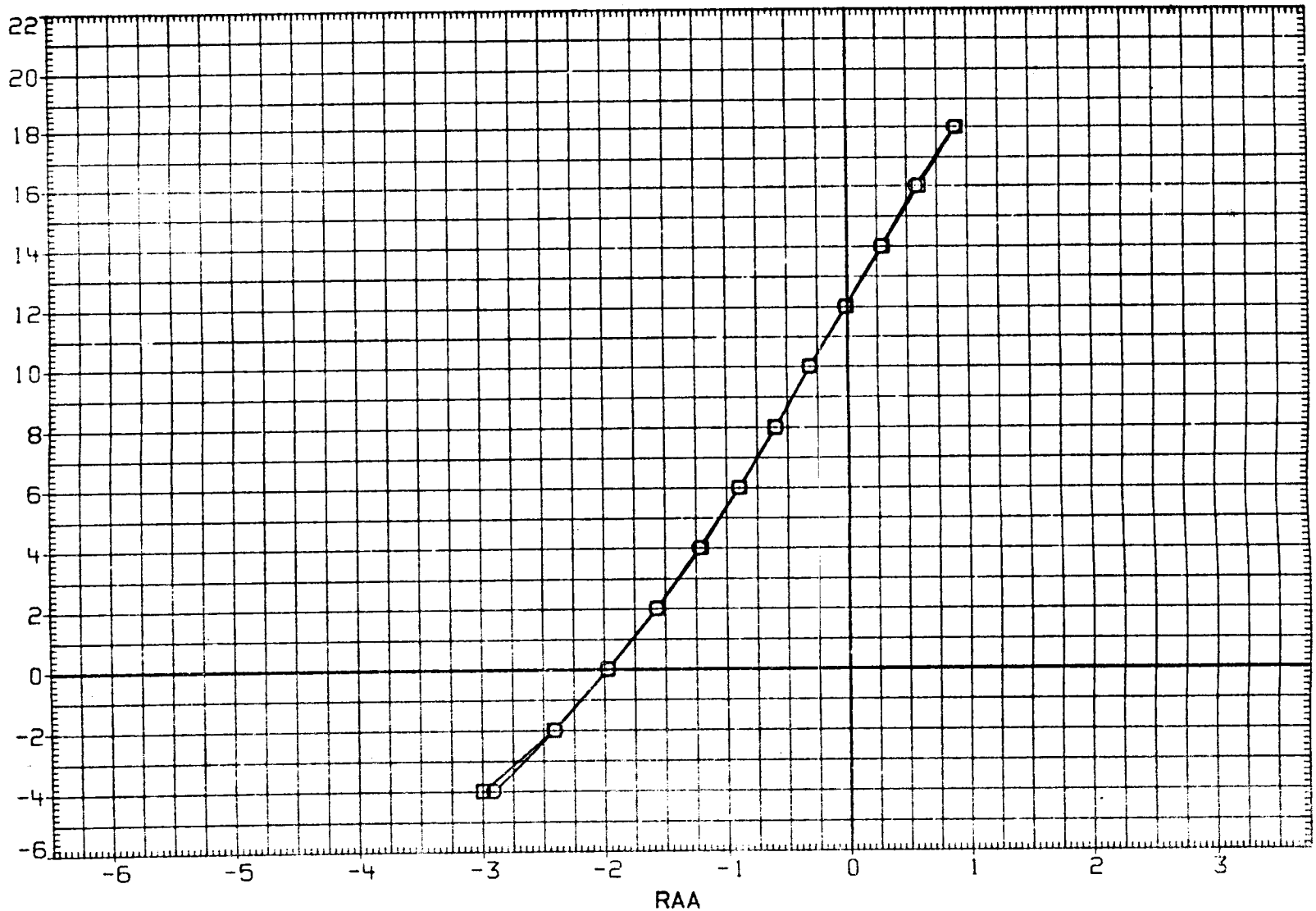


FIG. 73 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS ALPHA AVERAGED (L + R) / 2

(H)MACH = .90 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA11	○	0A232 A .2A A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA12	□	0A232 A .2A A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

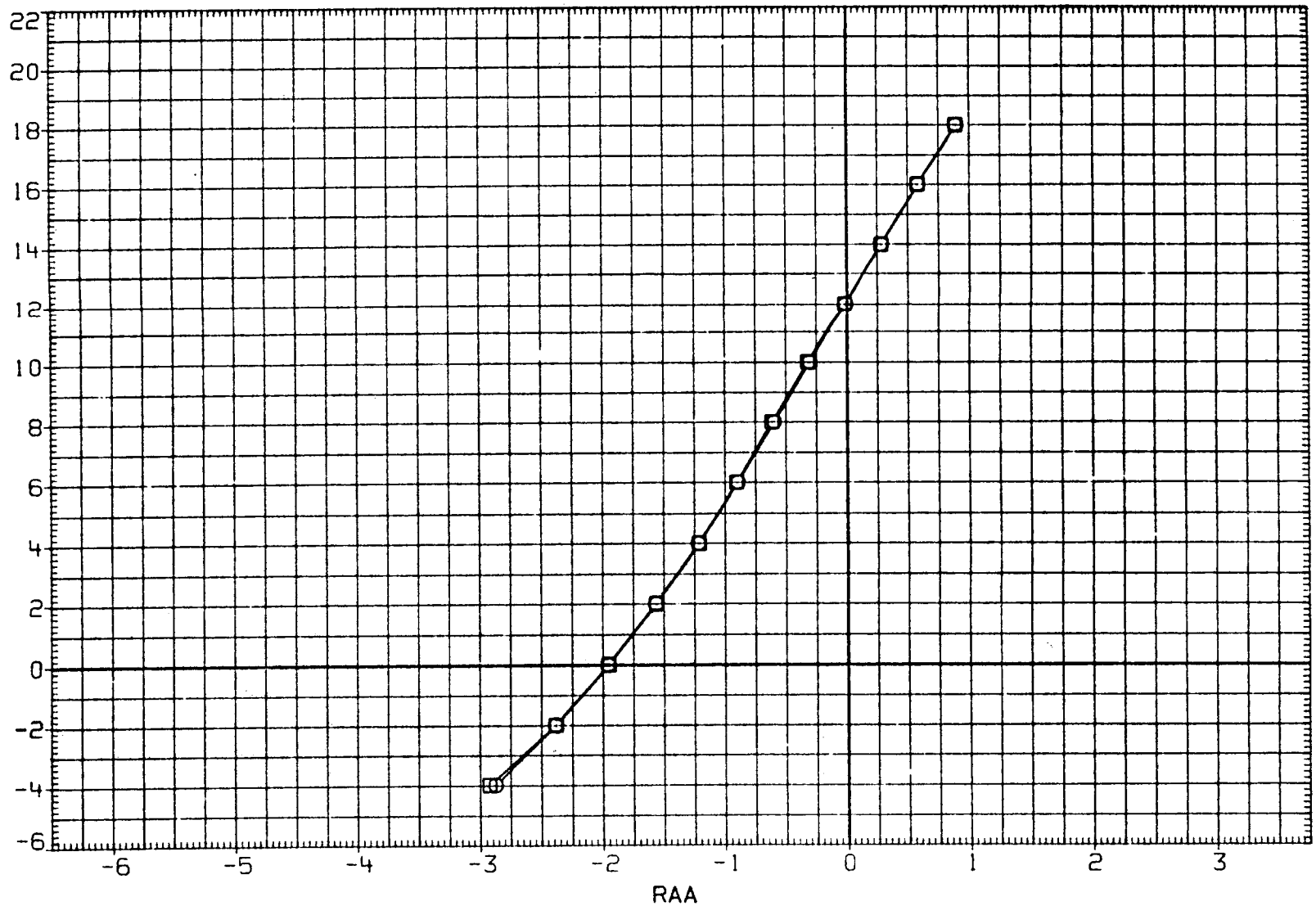


FIG. 73 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS ALPHA AVERAGED (L + R) / 2

(I)MACH = .95 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA11	○	0A232 A .2A A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA12	□	0A232 A .2A A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

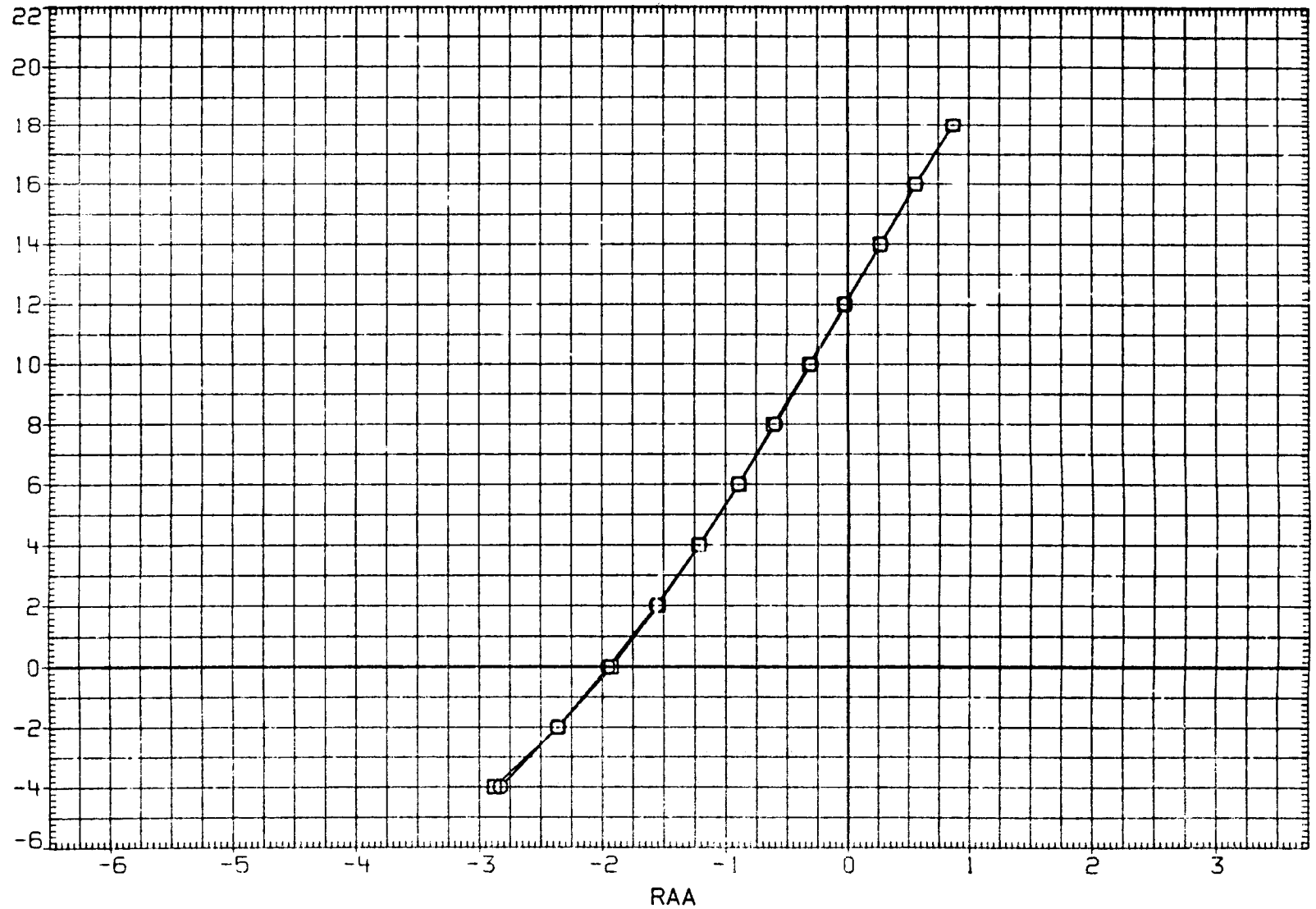


FIG. 73 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS ALPHA AVERAGED (L + R) / 2

(J)MACH = .98 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA11	○	0A232 A .2A A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA12	□	0A232 A .2A A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

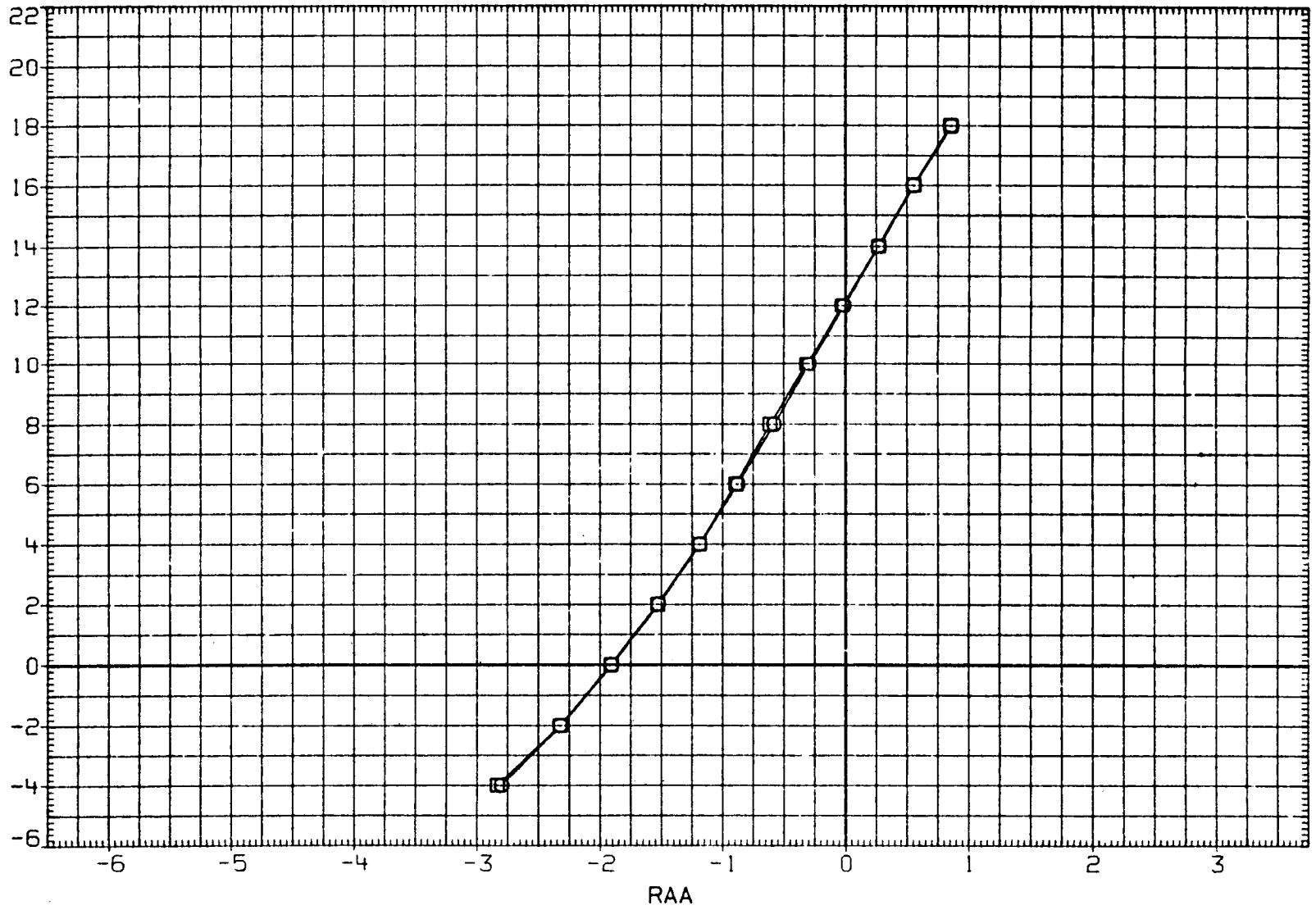


FIG. 73 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS ALPHA AVERAGED (L + R) / 2

(K)MACH = 1.05 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA11	○	0A232 A .2A A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA12	□	0A232 A .2A A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

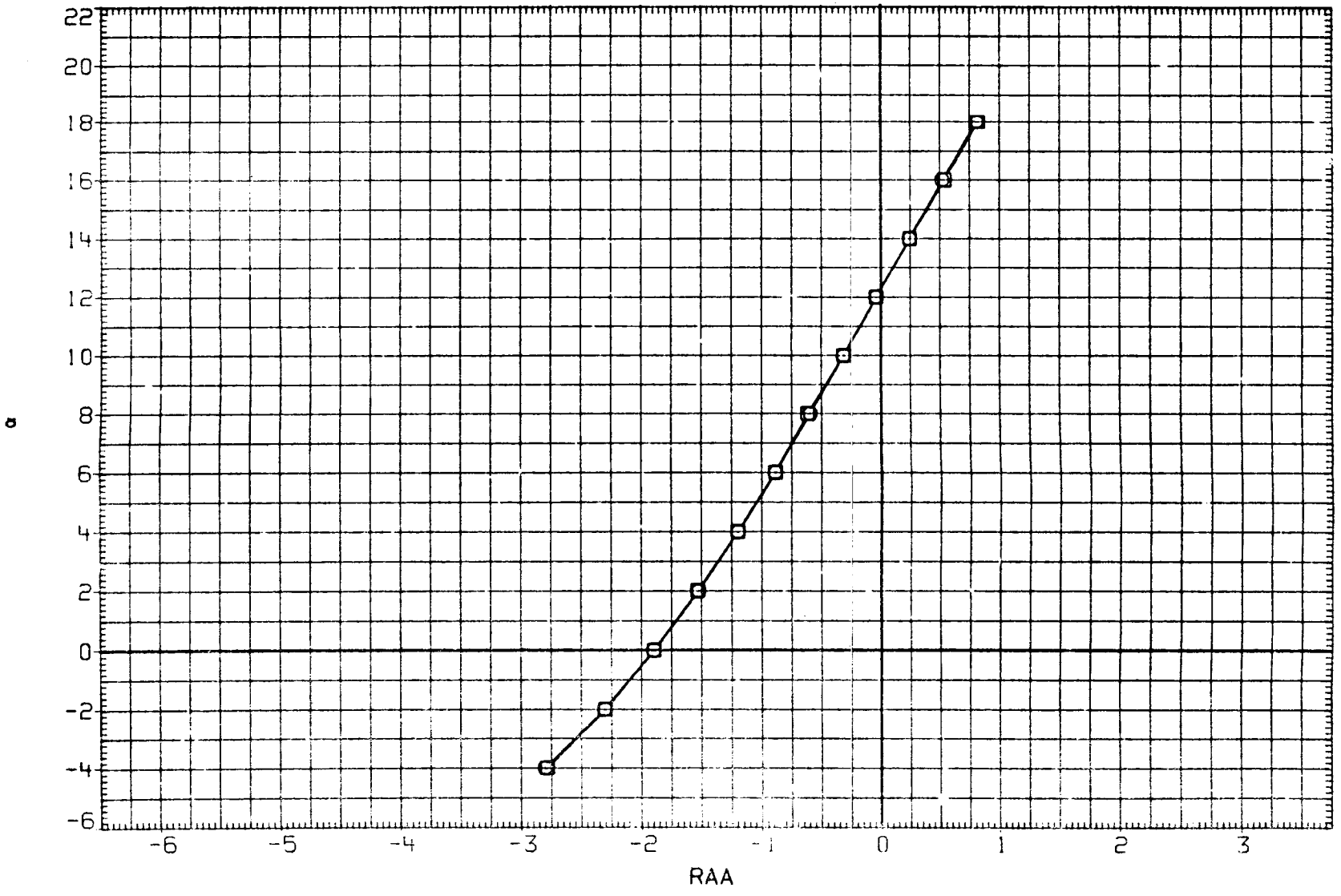


FIG. 73 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS ALPHA AVERAGED (L + R) / 2

(L)MACH = 1.10 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA11	○	0A232 A .2A A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA12	□	0A232 A .2A A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

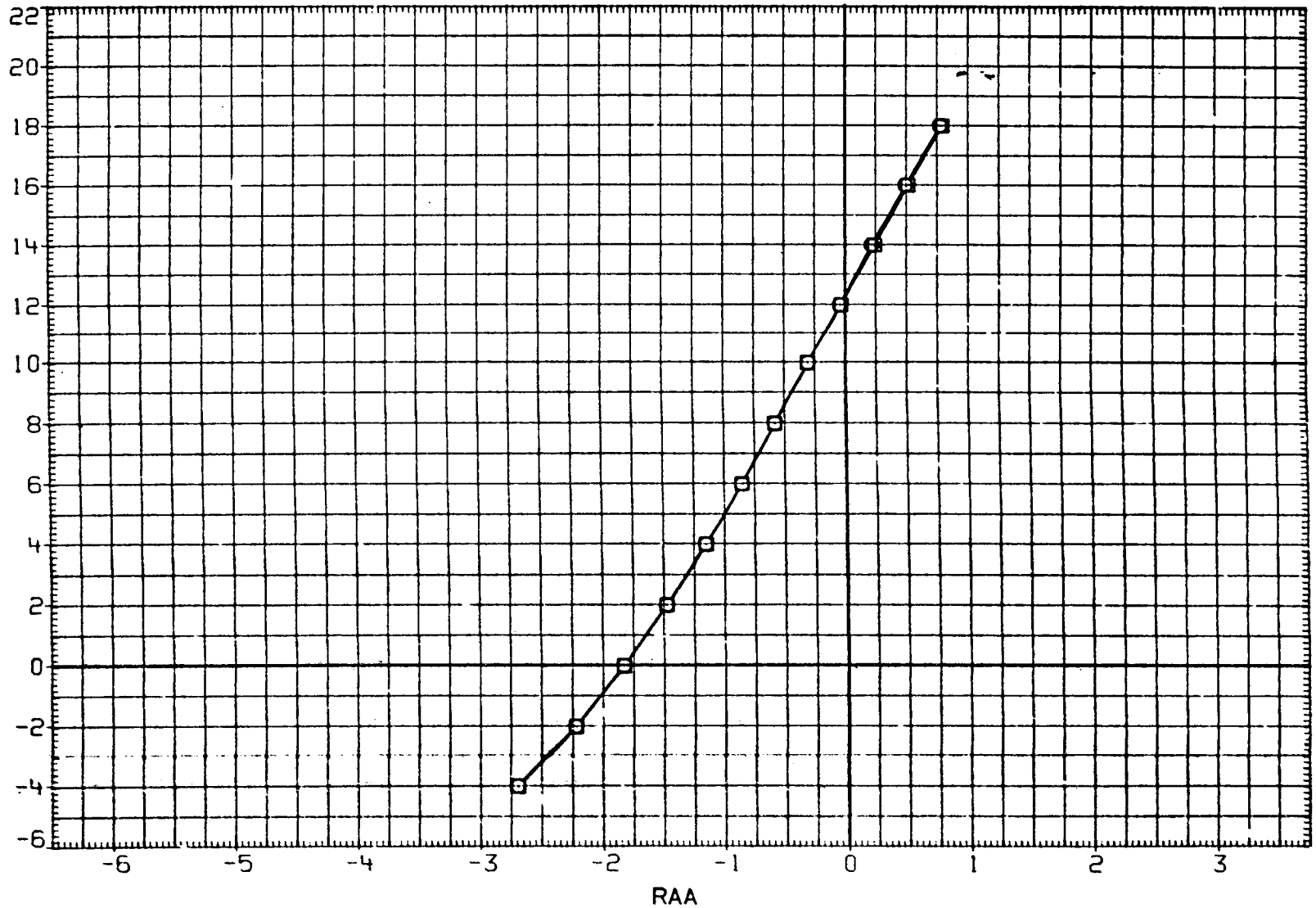


FIG. 73 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS ALPHA AVERAGED (L + R) / 2

(M)MACH = 1.15 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA11	○	0A232 A .2A A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA12	□	0A232 A .2A A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

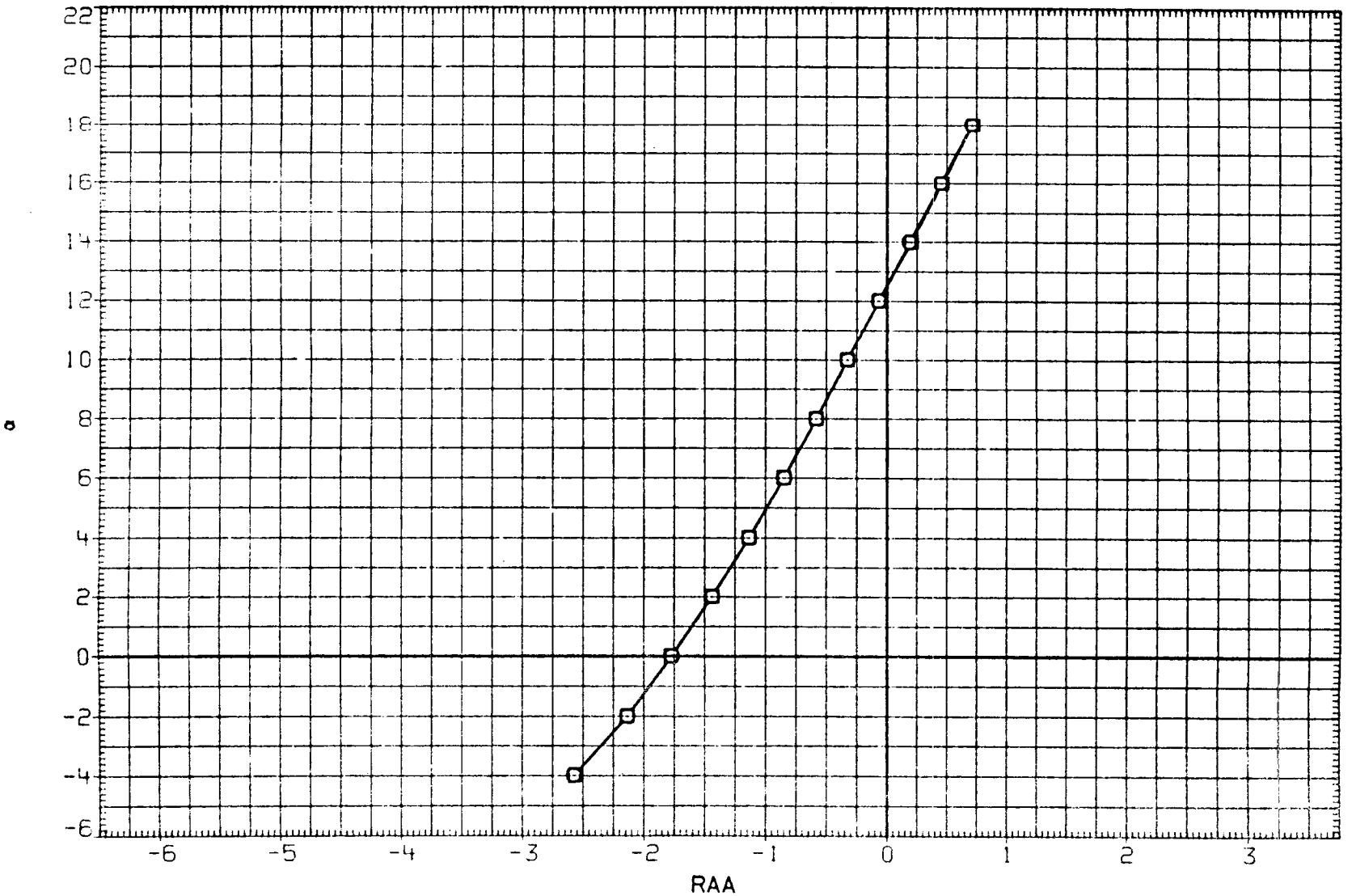


FIG. 73 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS ALPHA AVERAGED (L + R) / 2

(N)MACH = 1.20 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA11	○	0A232 A .2A A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA12	□	0A232 A .2A A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

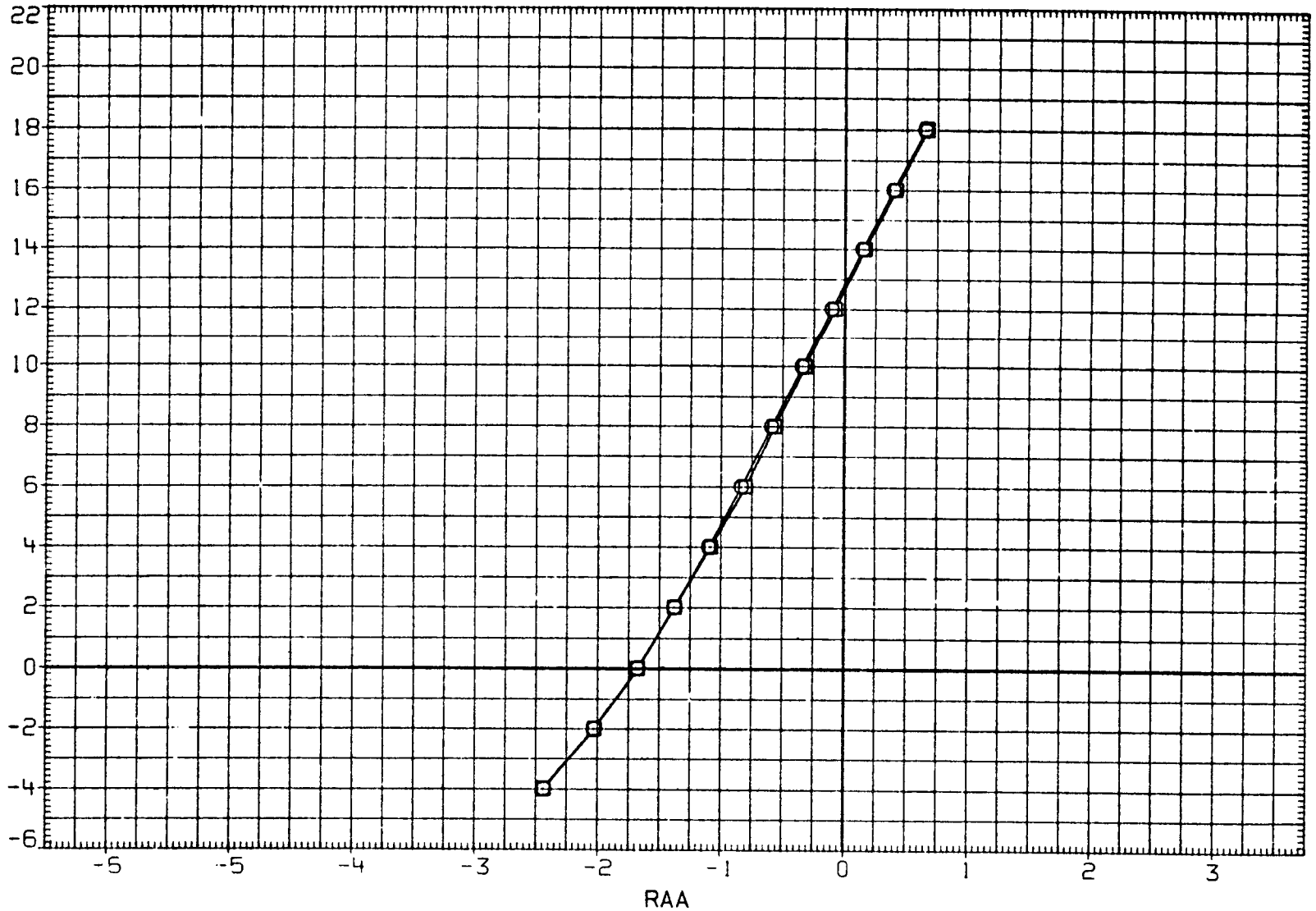


FIG. 73 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS ALPHA AVERAGED (L + R) / 2

(O)MACH = 1.30 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA11	○	0A232 A .2A A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA12	□	0A232 A .2A A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

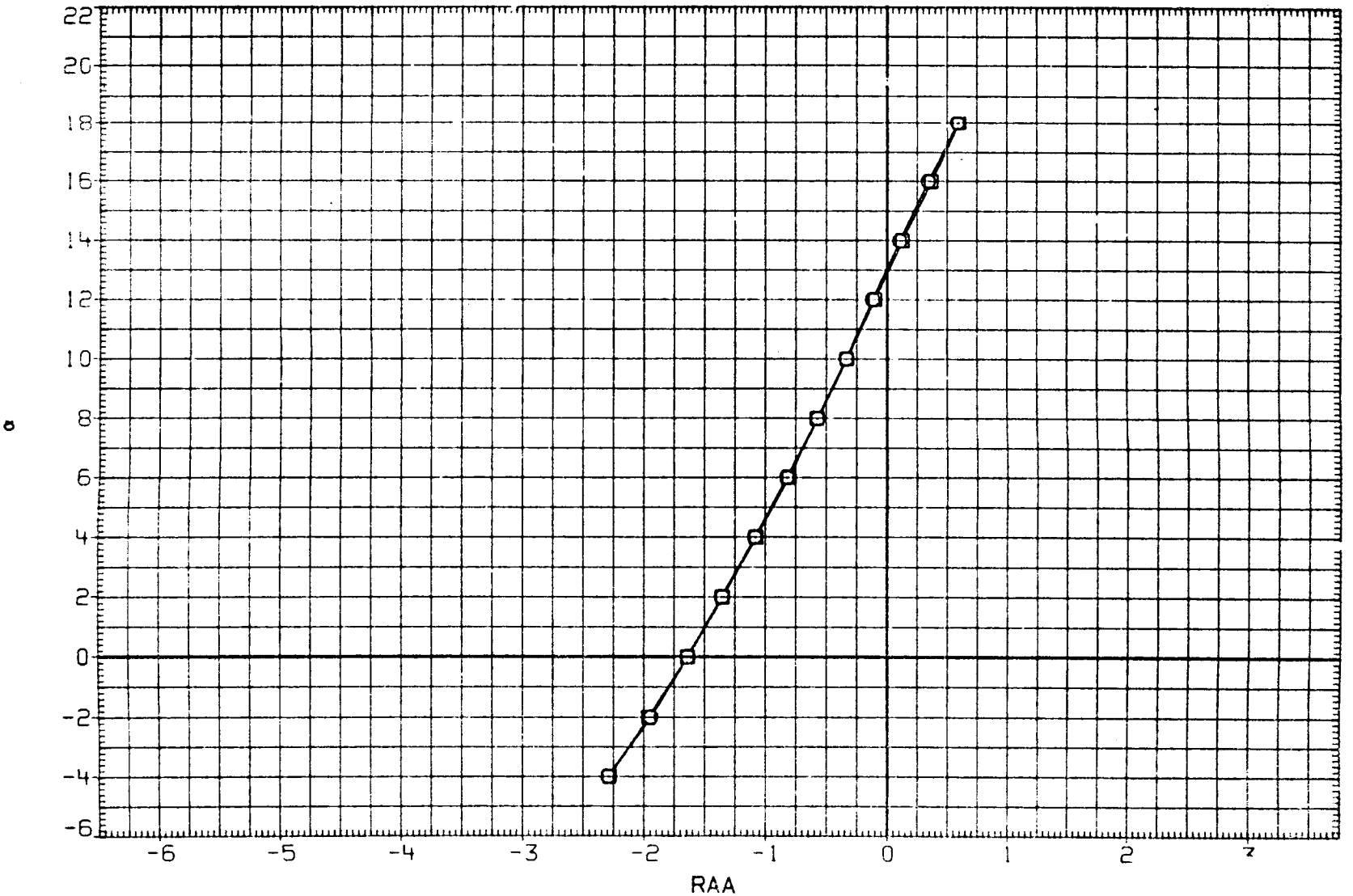


FIG. 73 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS ALPHA AVERAGED (L + R) / 2

(P)MACH = 1.40 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA11	○	0A232 A .2A A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA12	□	0A232 A .2A A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

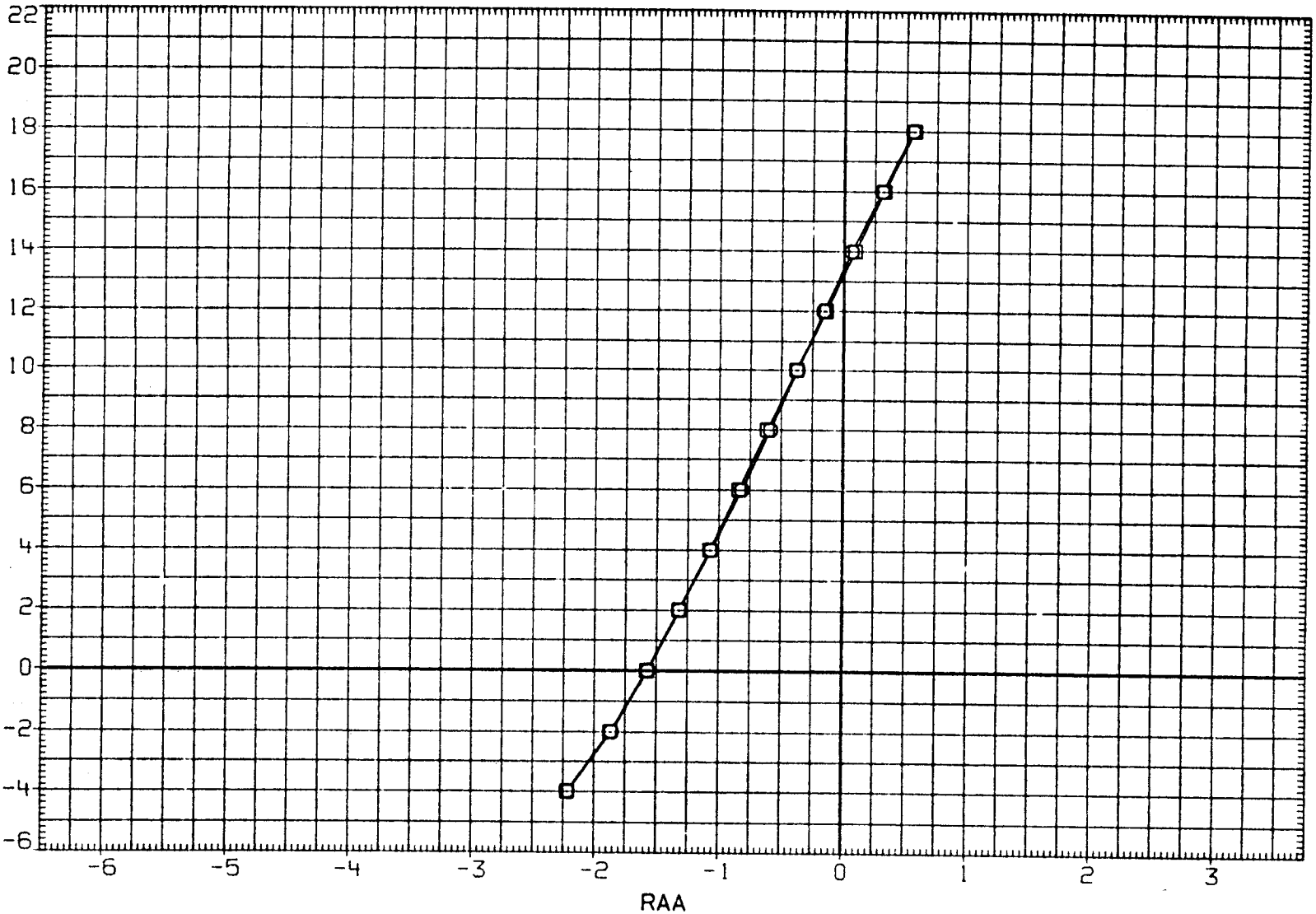


FIG. 73 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS ALPHA AVERAGED (L + R) / 2

(Q)MACH = 1.55 DATE 10 AUG 78

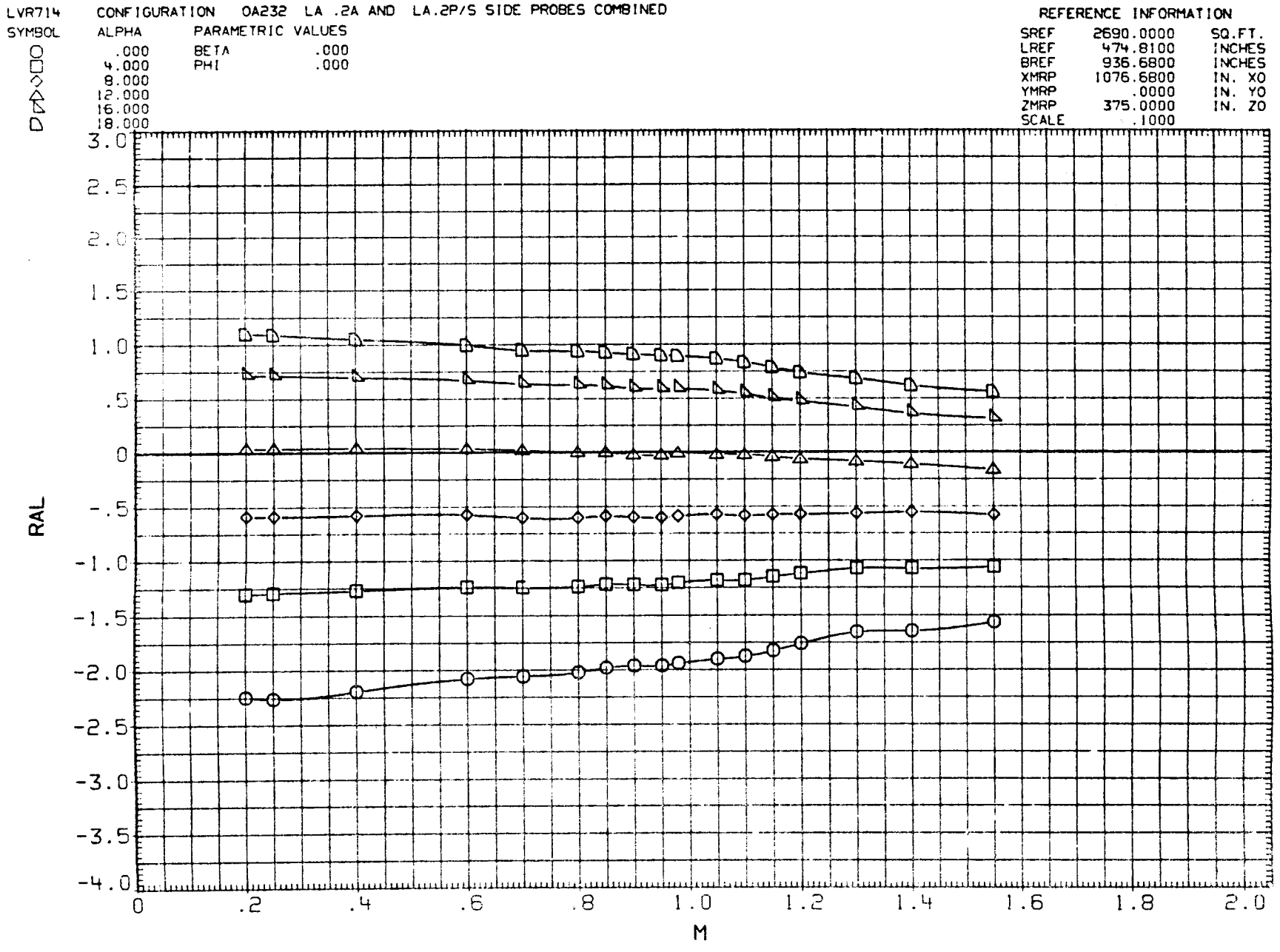


FIG. 74 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS MACH NUMBER
LEFT SIDE BETA = 0
DATE 10 AUG 78

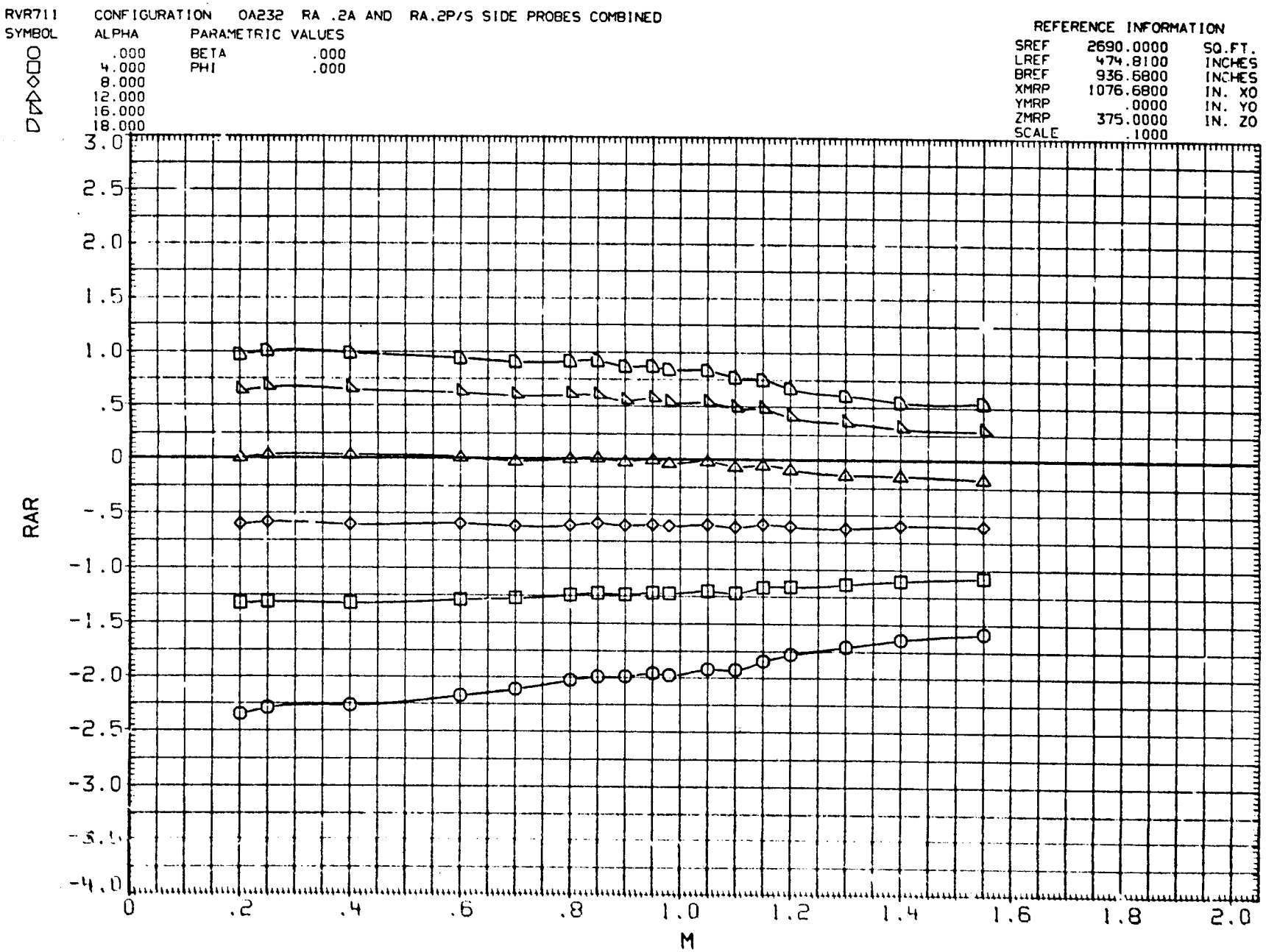


FIG. 75 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS MACH NUMBER
RIGHT SIDE BETA = 0

DATE 10 AUG 78

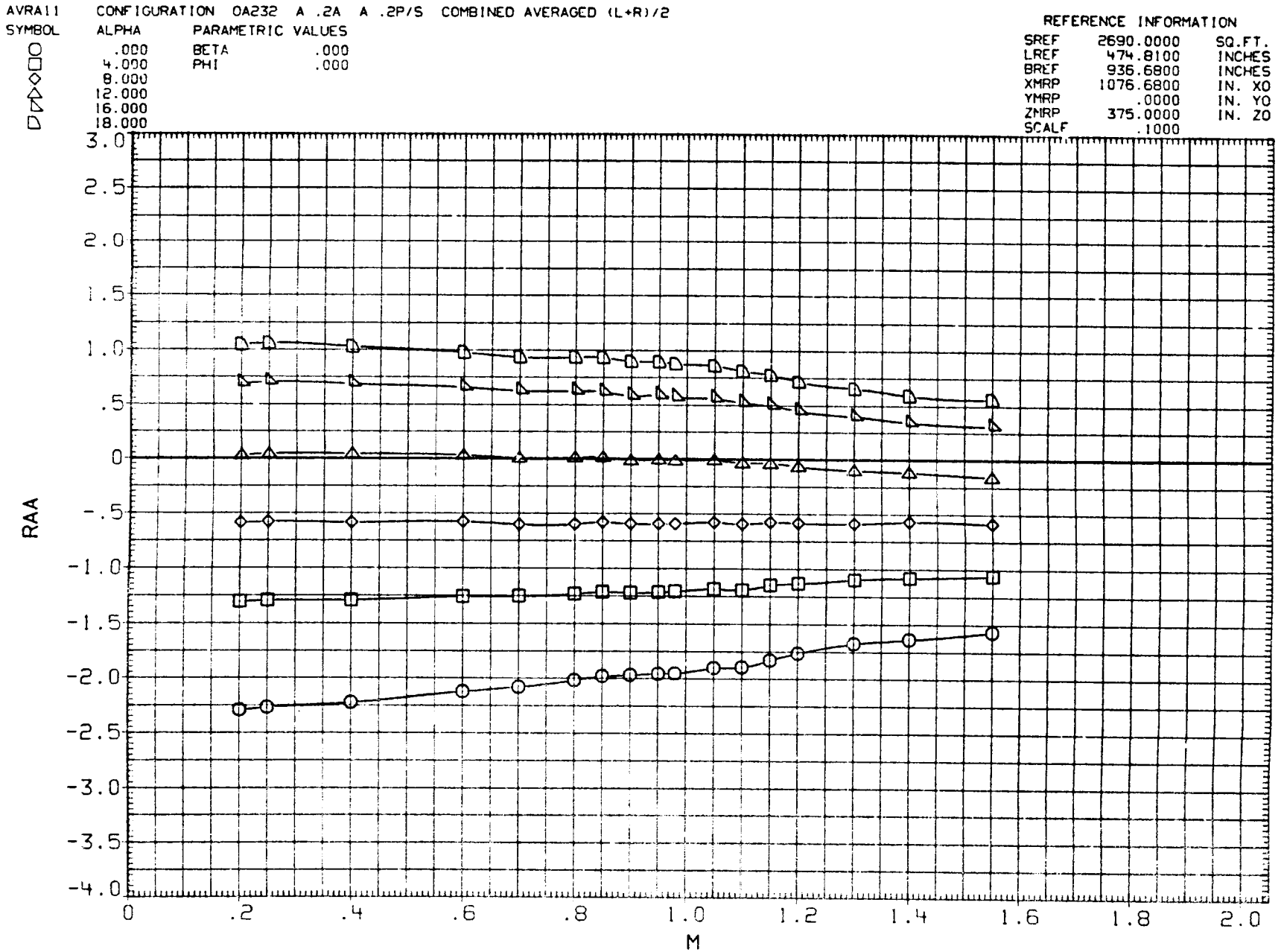


FIG. 76 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS MACH NUMBER
AVERAGED (L + R) / 2 BETA = 0
DATE 10 AUG 78

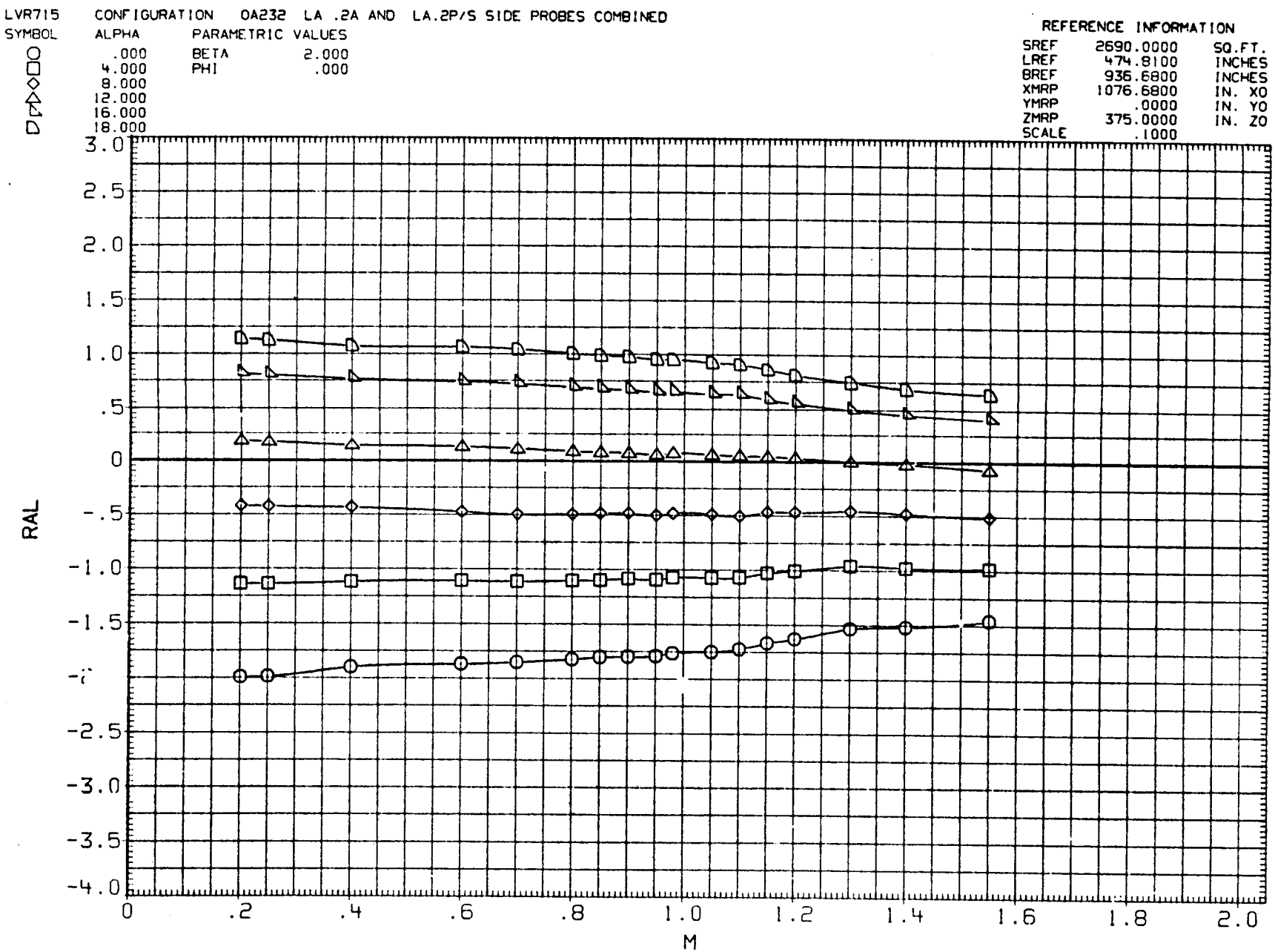


FIG. 77 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS MACH NUMBER
LEFT SIDE BETA = 2
DATE 10 AUG 78

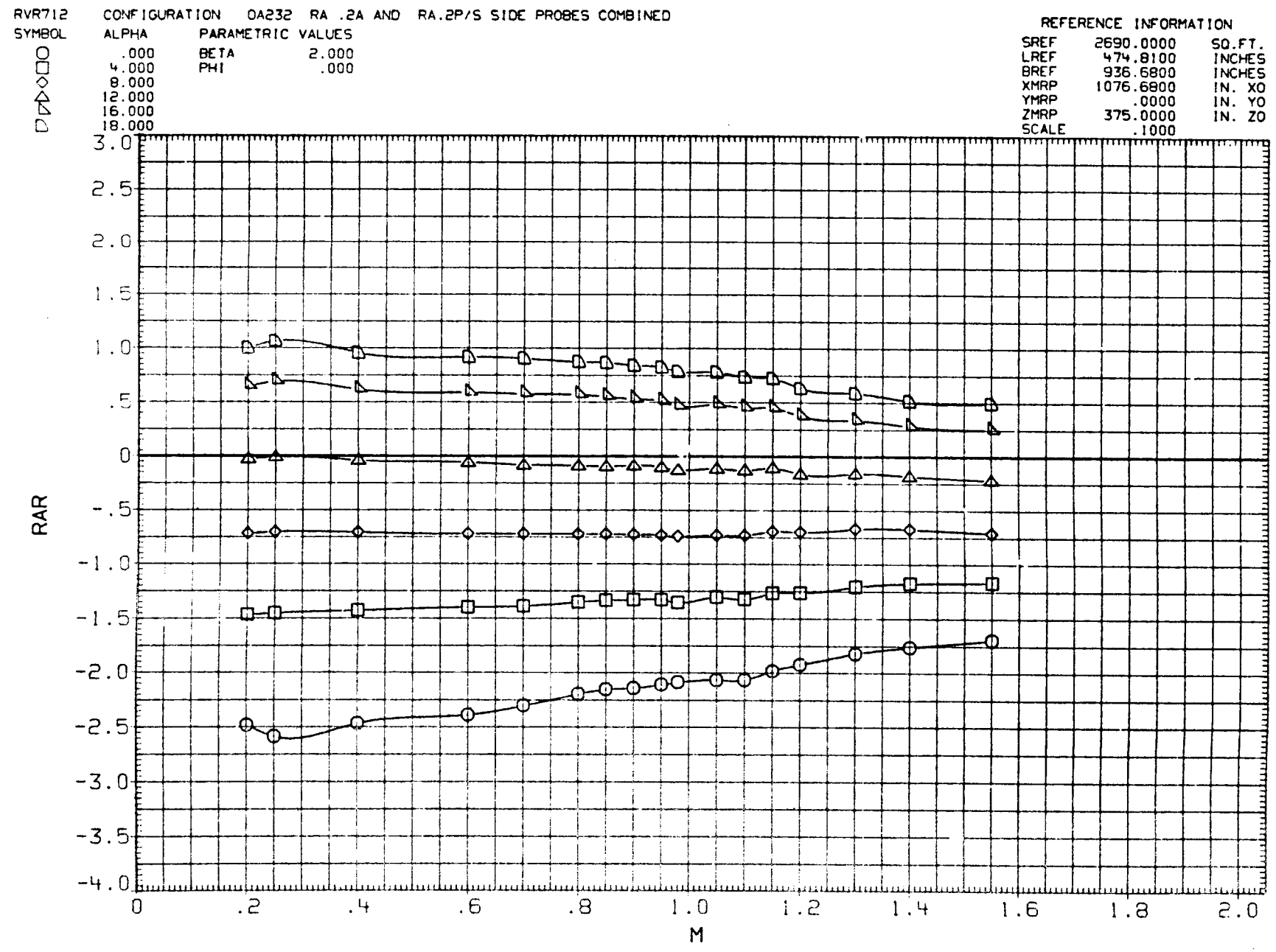


FIG. 78 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS MACH NUMBER
RIGHT SIDE BETA = 2

DATE 10 AUG 78

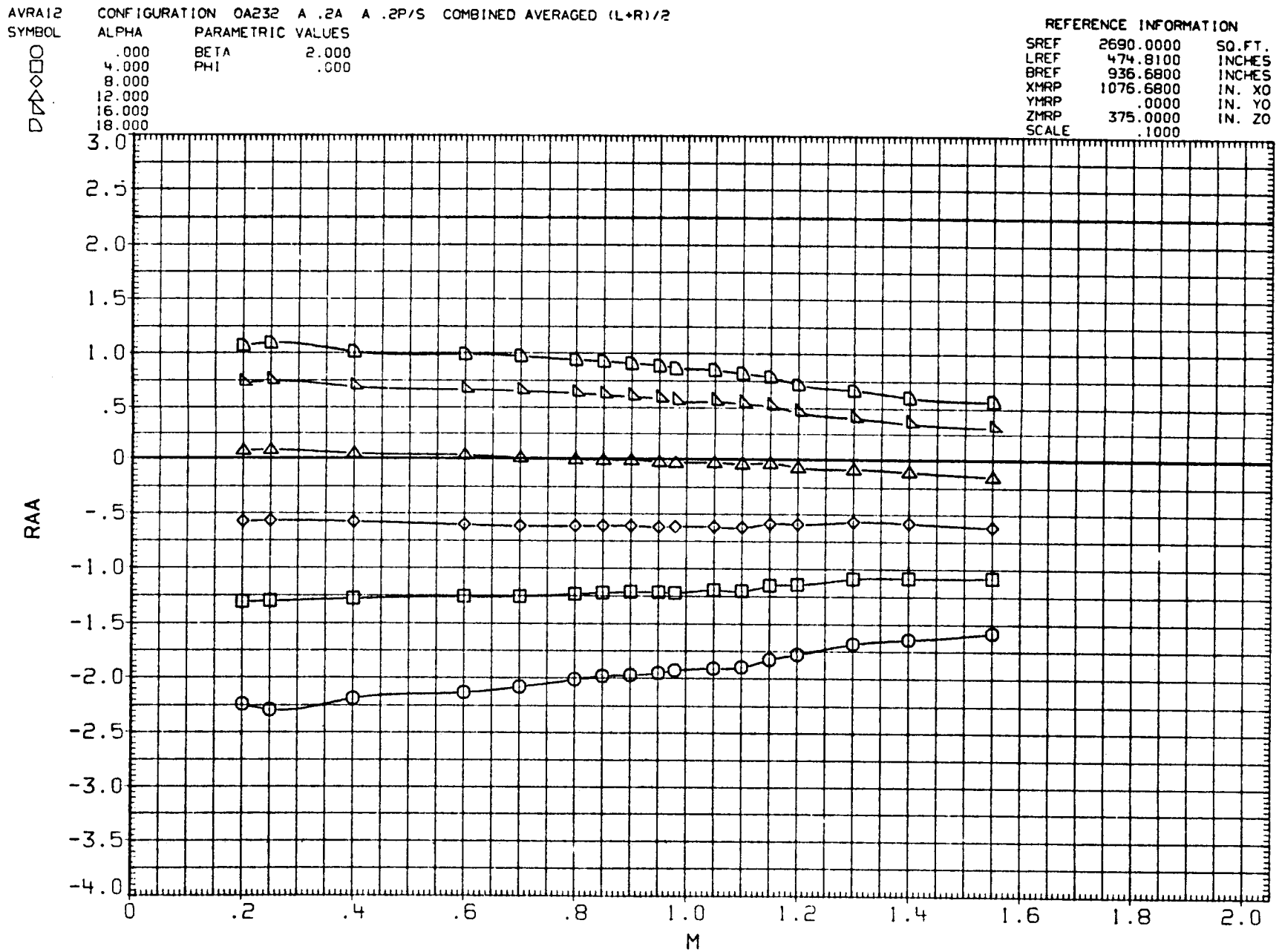


FIG. 79 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS MACH NUMBER AVERAGED (L + R) / 2 BETA = 2

DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
RVR712	○	0A232 RA .2A AND RA.2P/S SIDE PROBES COMBINED	2.000	.000
RVR711	□	0A232 RA .2A AND RA.2P/S SIDE PROBES COMBINED	.000	.000
LVR714	◇	0A232 LA .2A AND LA.2P/S SIDE PROBES COMBINED	.000	.000
LVR715	△	0A232 LA .2A AND LA.2P/S SIDE PROBES COMBINED	2.000	.000

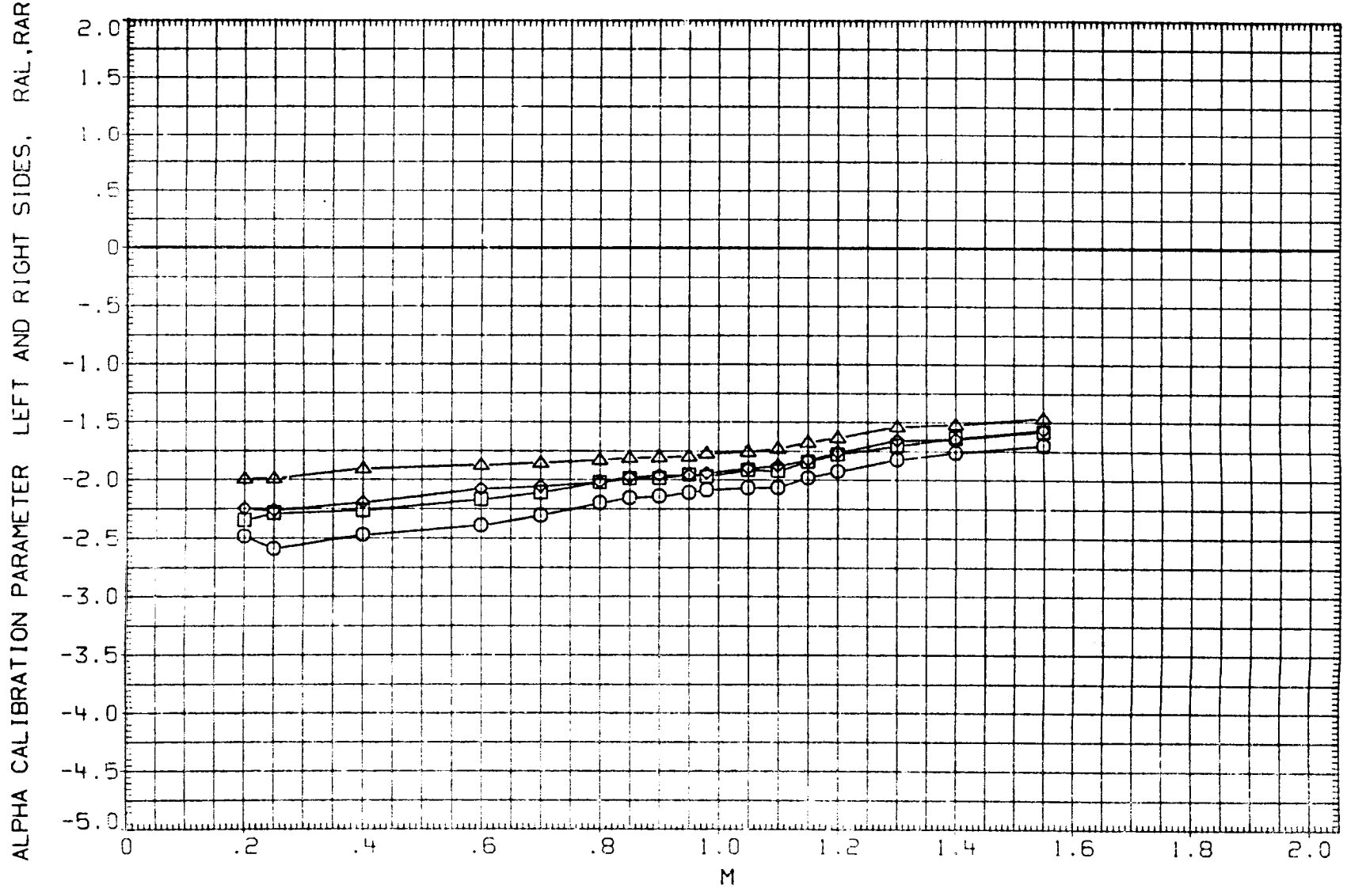


FIG. 80 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS MACH NUMBER
LEFT AND RIGHT SIDES COMPARED

(A) ALPHA = .00 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
RVR712	○	0A232 RA .2A AND RA.2P/S SIDE PROBES COMBINED	2.000	.000
RVR711	□	0A232 RA .2A AND RA.2P/S SIDE PROBES COMBINED	.000	.000
LVR714	◇	0A232 LA .2A AND LA.2P/S SIDE PROBES COMBINED	.000	.000
LVR715	△	0A232 LA .2A AND LA.2P/S SIDE PROBES COMBINED	2.000	.000

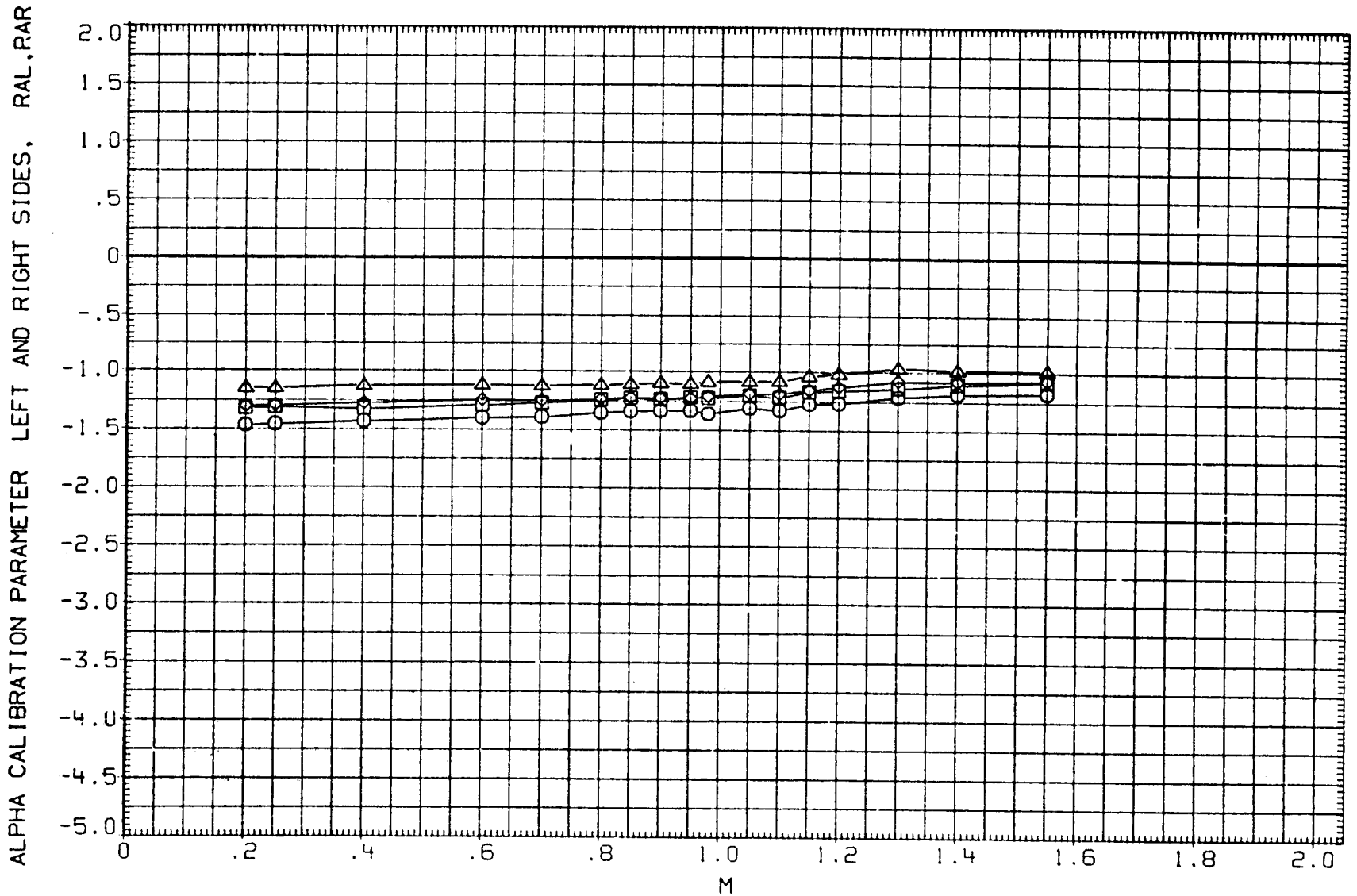


FIG. 80 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS MACH NUMBER
LEFT AND RIGHT SIDES COMPARED

(B)ALPHA = 4.00

DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
RVR712	○	0A232 RA .2A AND RA.2P/S SIDE PROBES COMBINED	2.000	.000
RVR711	□	0A232 RA .2A AND RA.2P/S SIDE PROBES COMBINED	.000	.000
LVR714	◇	0A232 LA .2A AND LA.2P/S SIDE PROBES COMBINED	.000	.000
LVR715	△	0A232 LA .2A AND LA.2P/S SIDE PROBES COMBINED	2.000	.000

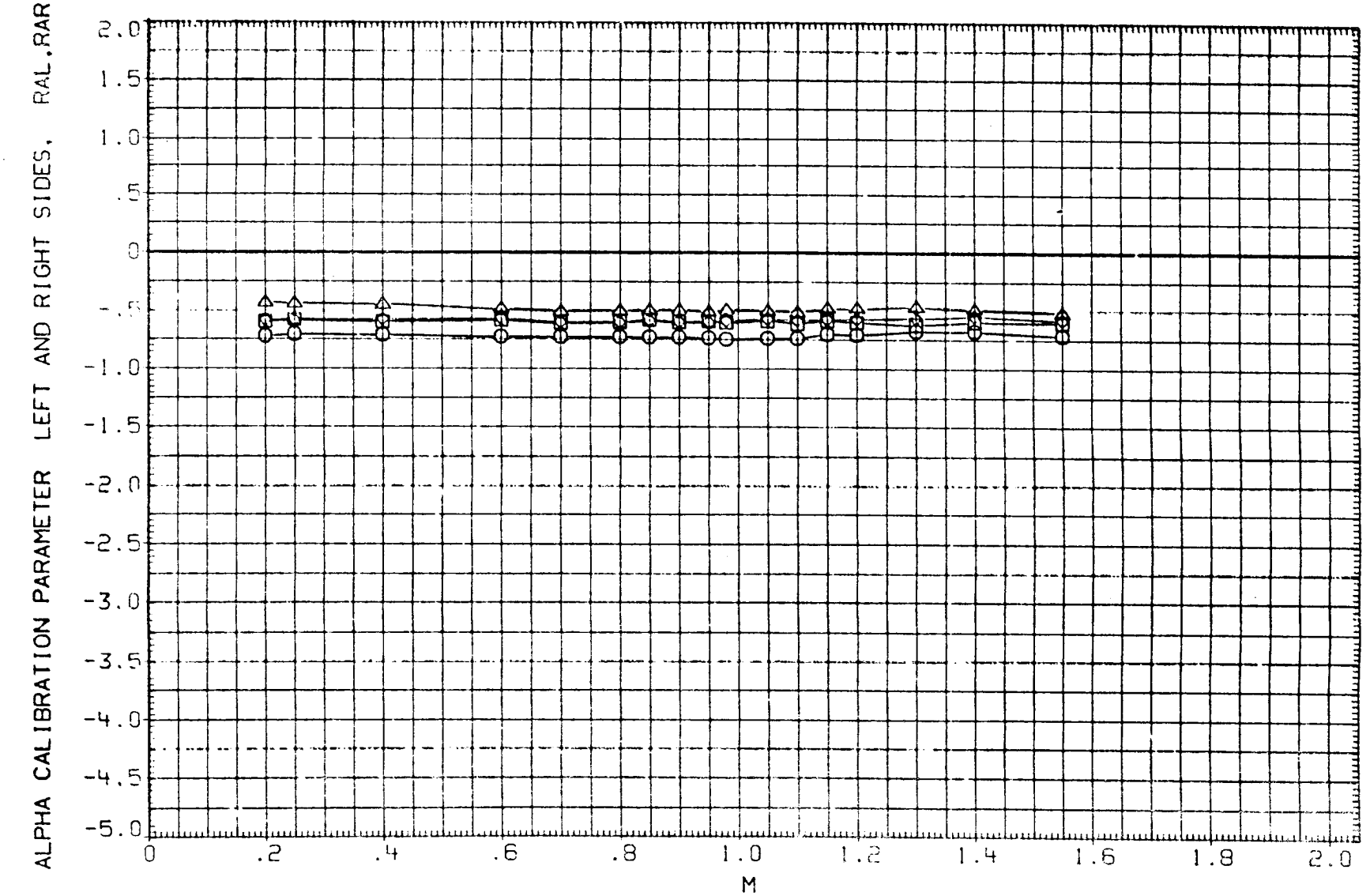


FIG. 80 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS MACH NUMBER
LEFT AND RIGHT SIDES COMPARED

(C)ALPHA = 8.00 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
RVR712	○	0A232 RA .2A AND RA.2P/S SIDE PROBES COMBINED	2.000	.000
RVR711	□	0A232 RA .2A AND RA.2P/S SIDE PROBES COMBINED	.000	.000
LVR714	◇	0A232 LA .2A AND LA.2P/S SIDE PROBES COMBINED	.000	.000
LVR715	△	0A232 LA .2A AND LA.2P/S SIDE PROBES COMBINED	2.000	.000

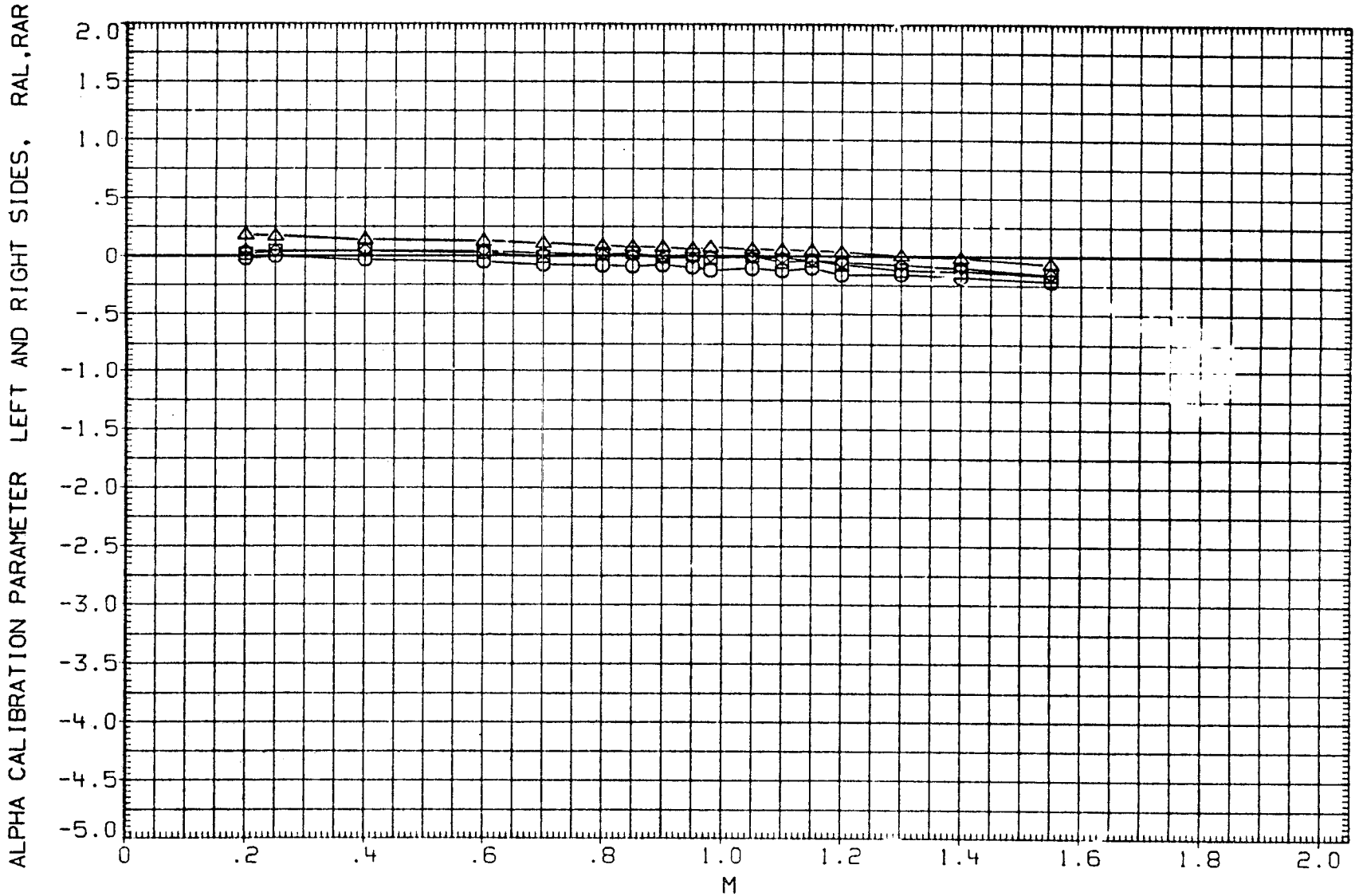


FIG. 80 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS MACH NUMBER LEFT AND RIGHT SIDES COMPARED

(D)ALPHA = 12.00

DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
RVR712	○	0A232 RA .2A AND RA.2P/S SIDE PROBES COMBINED	2.000	.000
RVR711	□	0A232 RA .2A AND RA.2P/S SIDE PROBES COMBINED	.000	.000
LVR714	◇	0A232 LA .2A AND LA.2P/S SIDE PROBES COMBINED	.000	.000
LVR715	△	0A232 LA .2A AND LA.2P/S SIDE PROBES COMBINED	2.000	.000

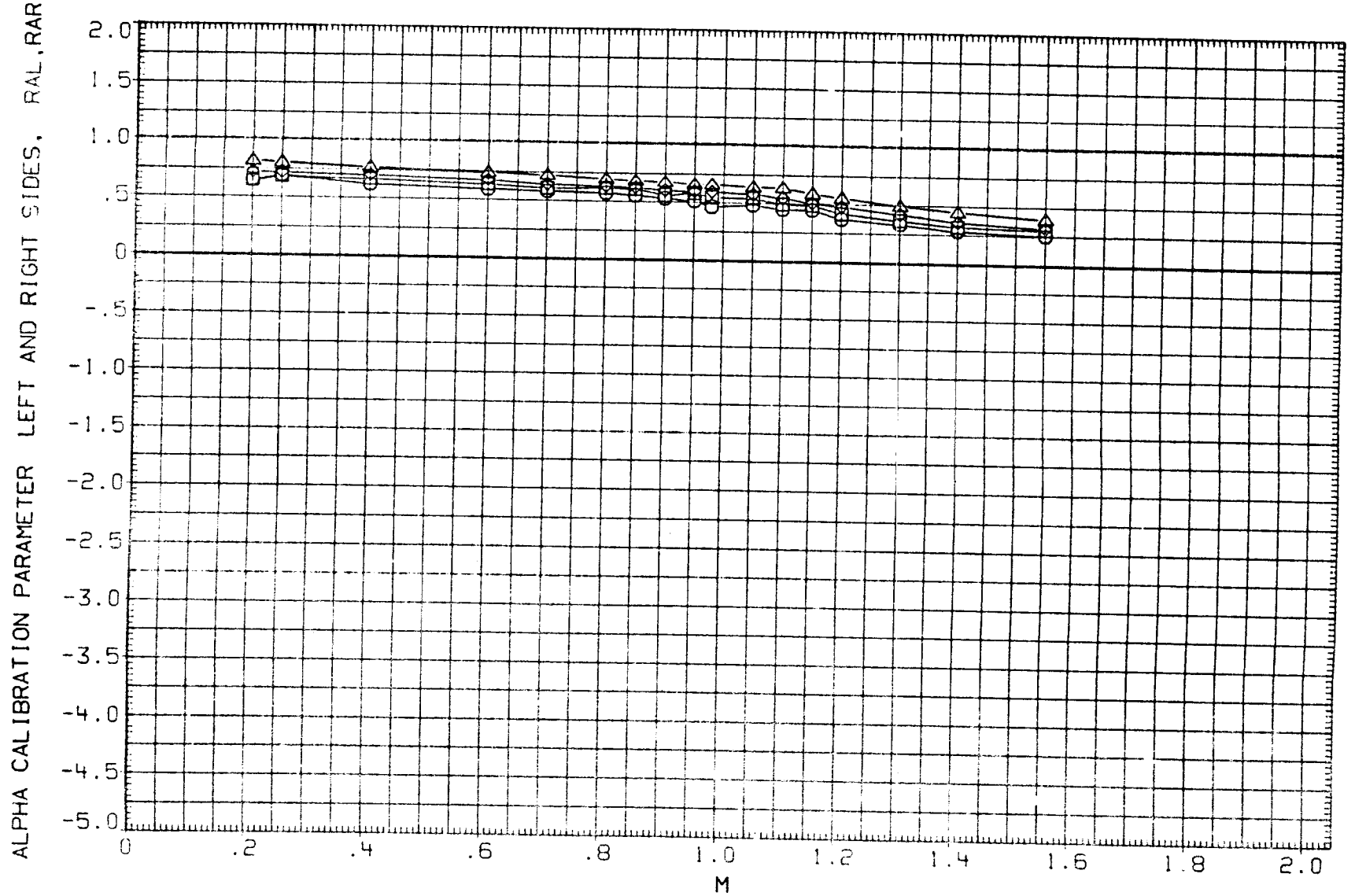


FIG. 80 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS MACH NUMBER
LEFT AND RIGHT SIDES COMPARED

(E)ALPHA = 16.00

DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
RVR712	○	0A232 RA .2A AND RA.2P/S SIDE PROBES COMBINED	2.000	.000
RVR711	□	0A232 RA .2A AND RA.2P/S SIDE PROBES COMBINED	.000	.000
LVR714	◇	0A232 LA .2A AND LA.2P/S SIDE PROBES COMBINED	.000	.000
LVR715	△	0A232 LA .2A AND LA.2P/S SIDE PROBES COMBINED	2.000	.000

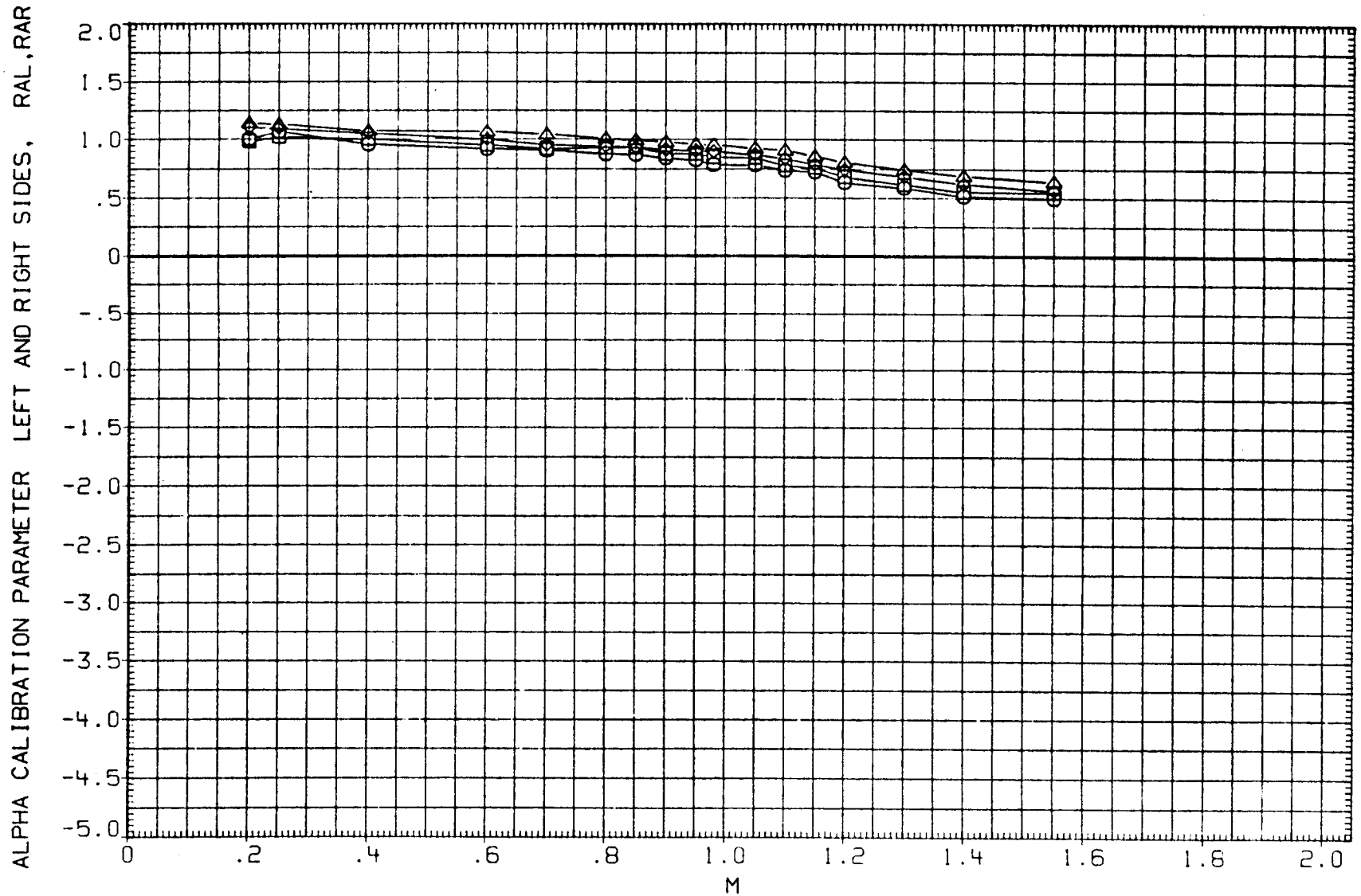


FIG. 80 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS MACH NUMBER
LEFT AND RIGHT SIDES COMPARED

(F)ALPHA = 18.00 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA11	○	0A232 A .2A A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA12	□	0A232 A .2A A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

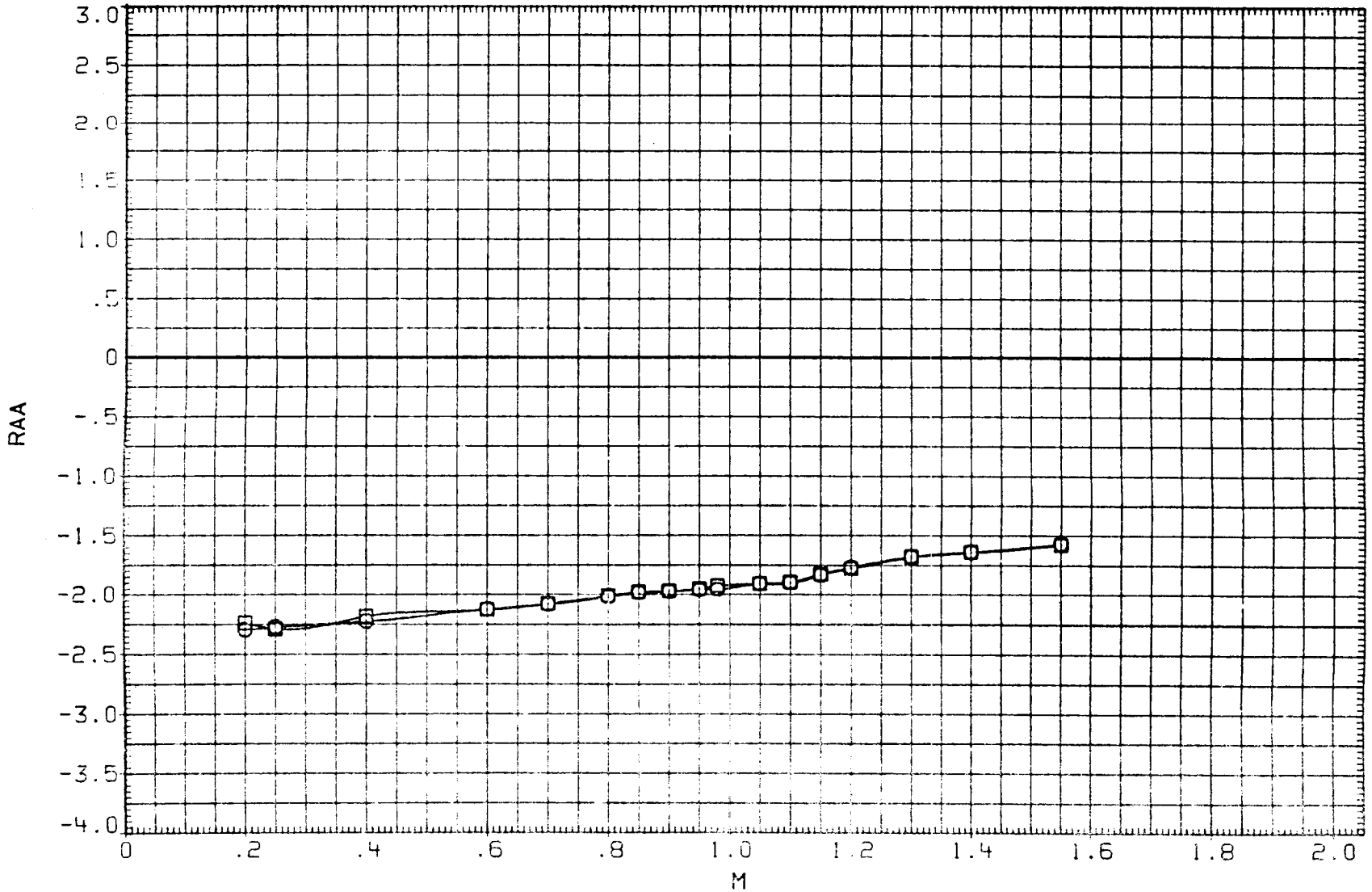


FIG. 81 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS MACH NUMBER AVERAGED (L + R) / 2

(A)ALPHA = .00 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA11	○	0A232 A .2A A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA12	□	0A232 A .2A A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

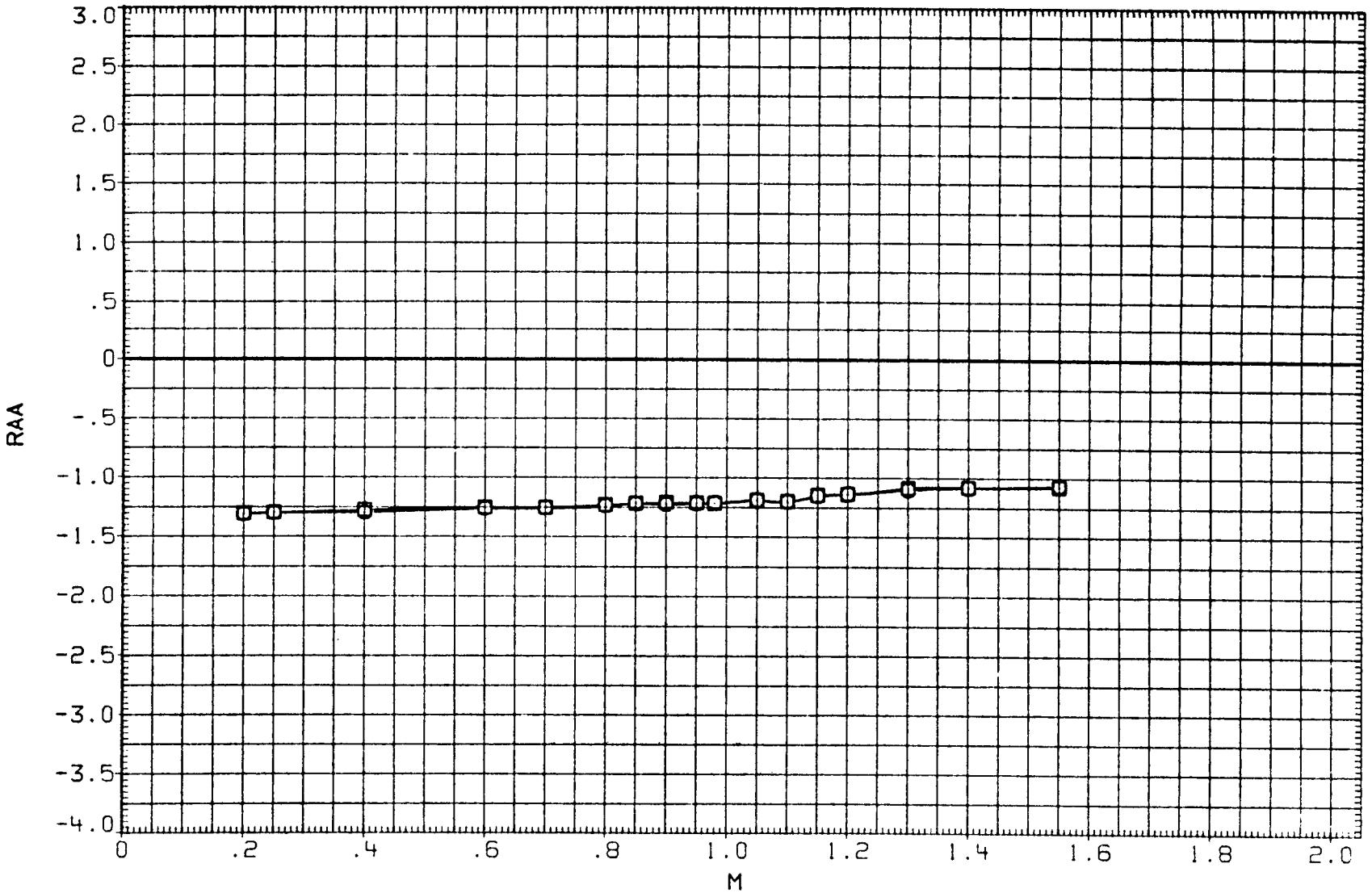


FIG. 81 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS MACH NUMBER AVERAGED (L + R) / 2

(B)ALPHA = 4.00 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA11	○	0A232 A .2A A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA12	□	0A232 A .2A A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

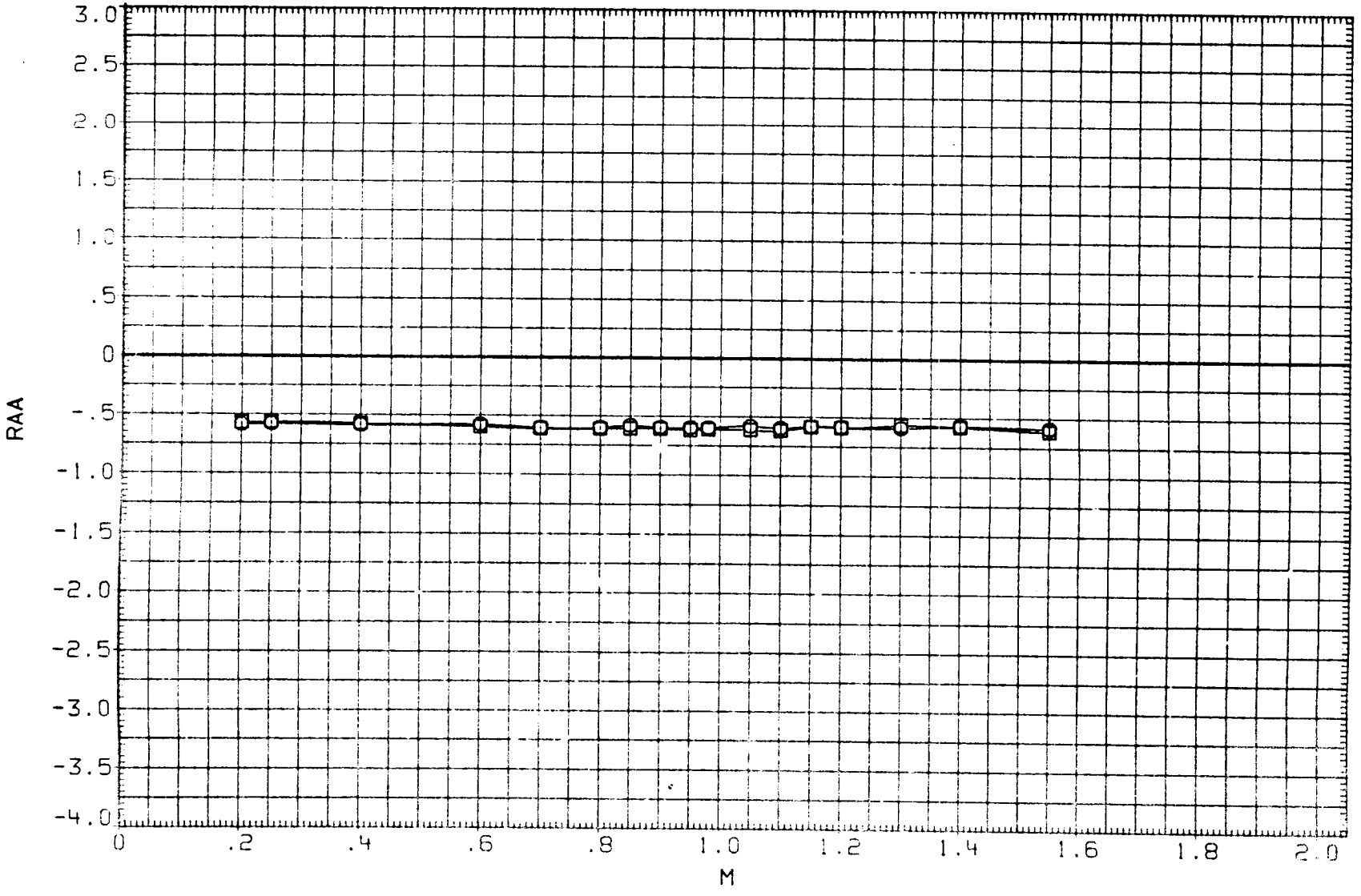


FIG. 81 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS MACH NUMBER AVERAGED (L + R) / 2

(C) ALPHA = 8.00 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA11	○	0A232 A .2A A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA12	□	0A232 A .2A A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

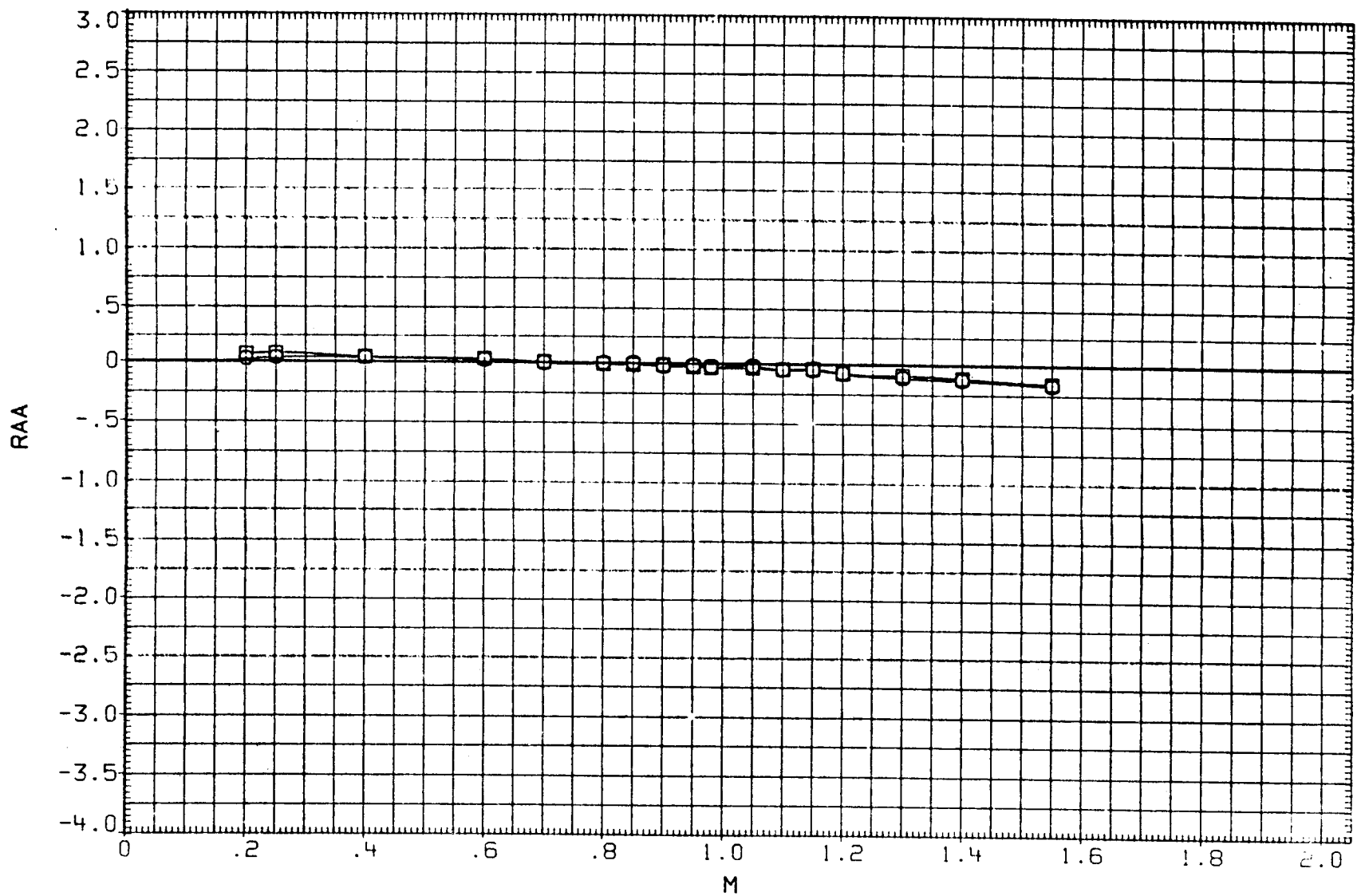


FIG. 81 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS MACH NUMBER AVERAGED (L + R) / 2

(D)ALPHA = 12.00

DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA11	○	0A232 A .2A A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA12	□	0A232 A .2A A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

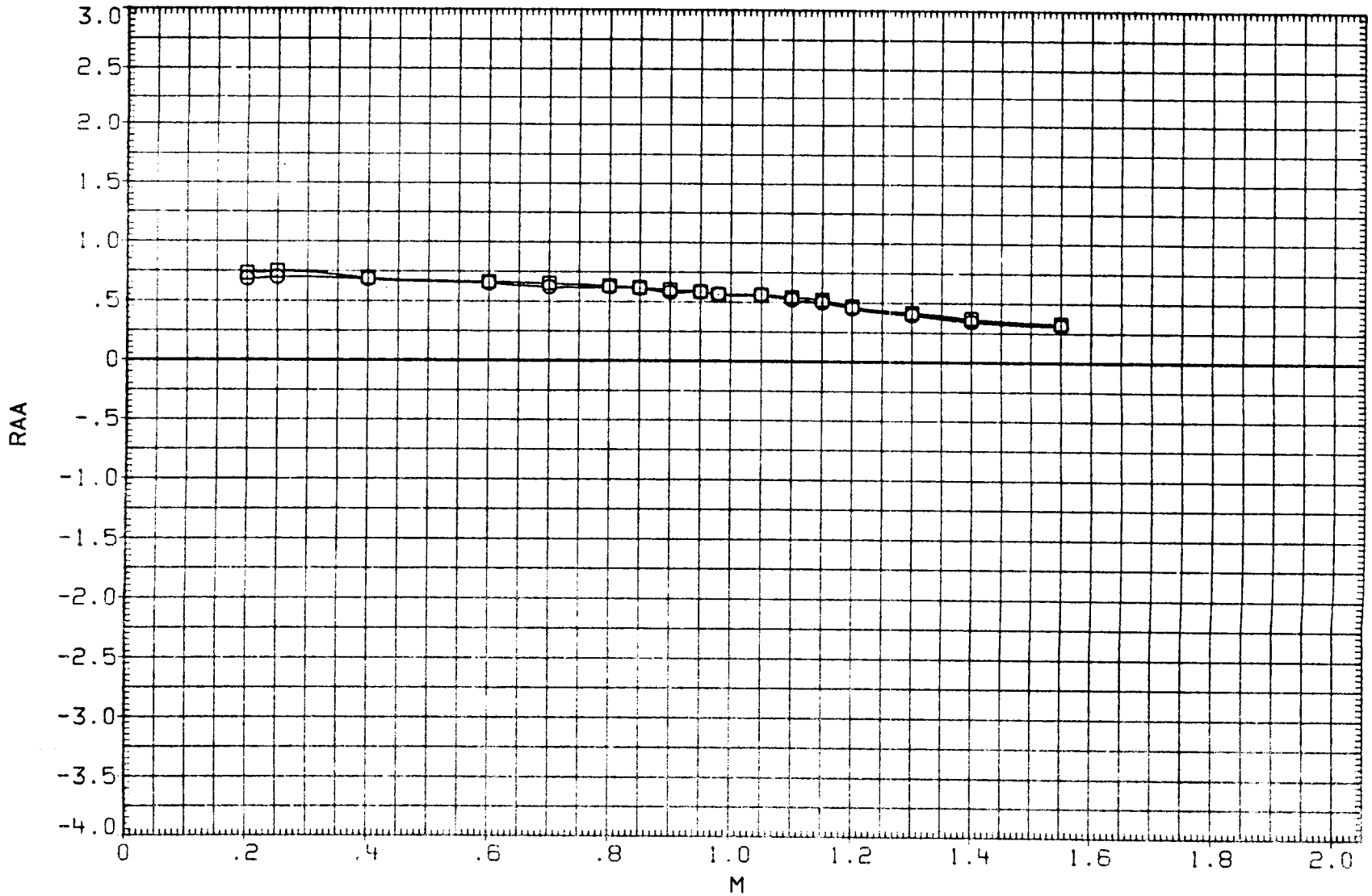


FIG. 81 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS MACH NUMBER AVERAGED (L + R) / 2

(E)ALPHA = 16.00 DATE 10 AUG 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
AVRA11	○	0A232 A .2A A .2P/S COMBINED AVERAGED (L+R)/2	.000	.000
AVRA12	□	0A232 A .2A A .2P/S COMBINED AVERAGED (L+R)/2	2.000	.000

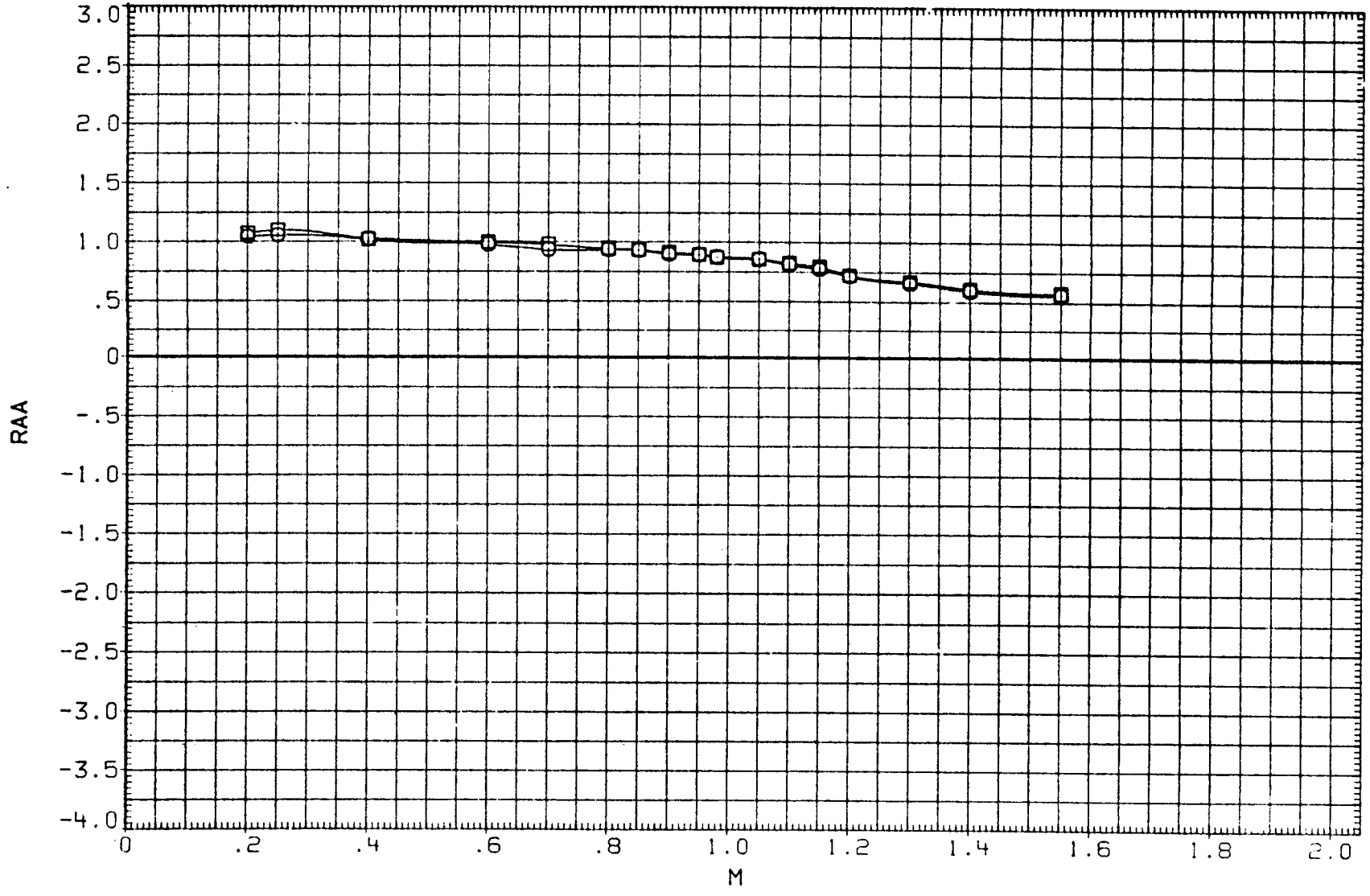


FIG. 81 0.2-SCALE ALPHA CALIBRATION PARAMETER VERSUS MACH NUMBER AVERAGED (L + R) / 2

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
BVR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
BVR017	□	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
BVR018	◇	DATA NOT AVAILABLE	.000	.000
BVR019	◁	DATA NOT AVAILABLE	.000	.000
BVR020	◺	DATA NOT AVAILABLE	.000	.000
BVR003	D	DATA NOT AVAILABLE	.000	.000

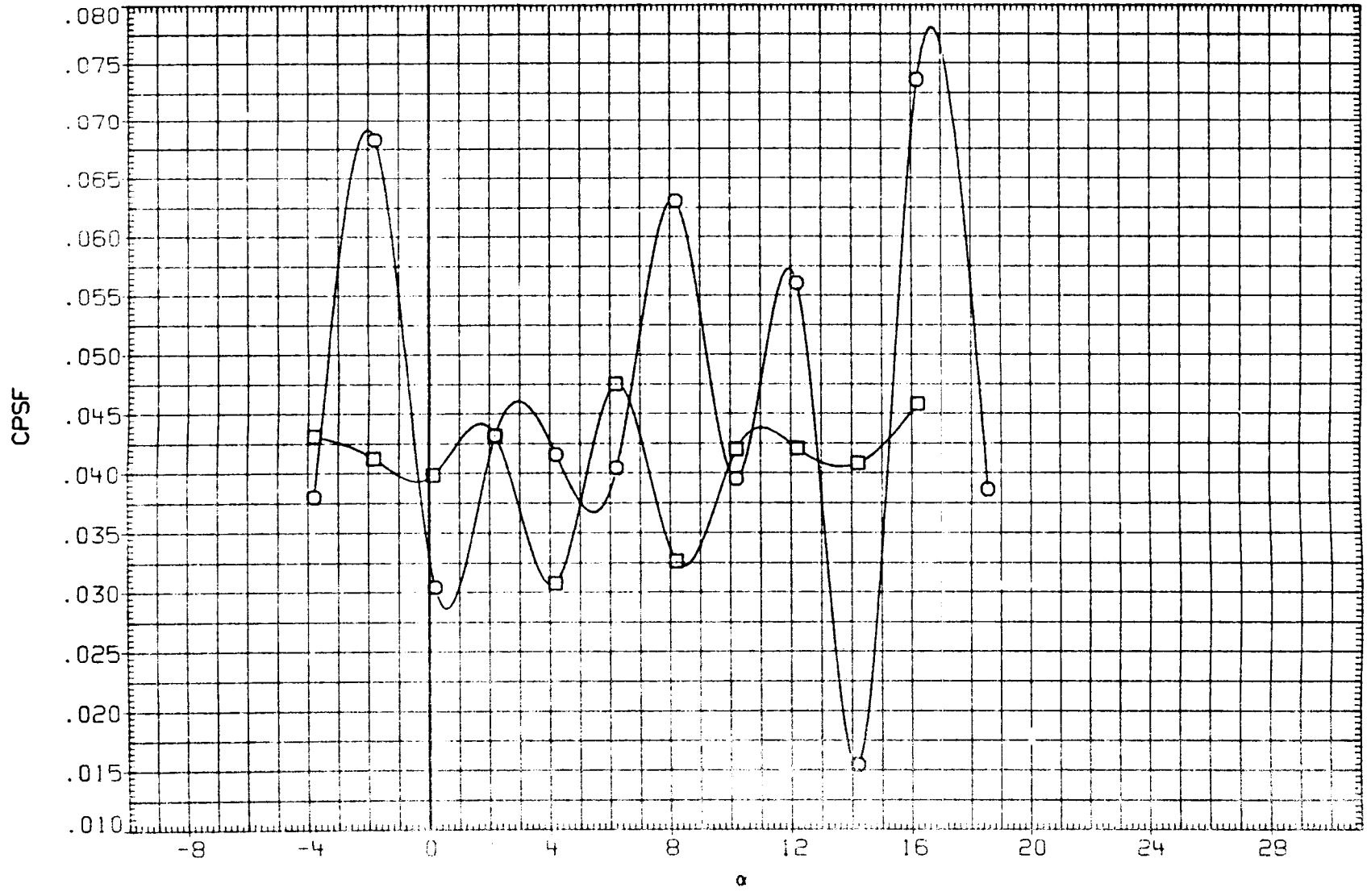


FIG. 82 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS
FLIGHT TEST PROBE

(A)MACH = .20 DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
BVR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
BVR017	□	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
BVR018	◇	DATA NOT AVAILABLE	.000	.000
BVR019	△	DATA NOT AVAILABLE	.000	.000
BVR020	◺	DATA NOT AVAILABLE	.000	.000
BVR003	⬠	DATA NOT AVAILABLE	.000	.000

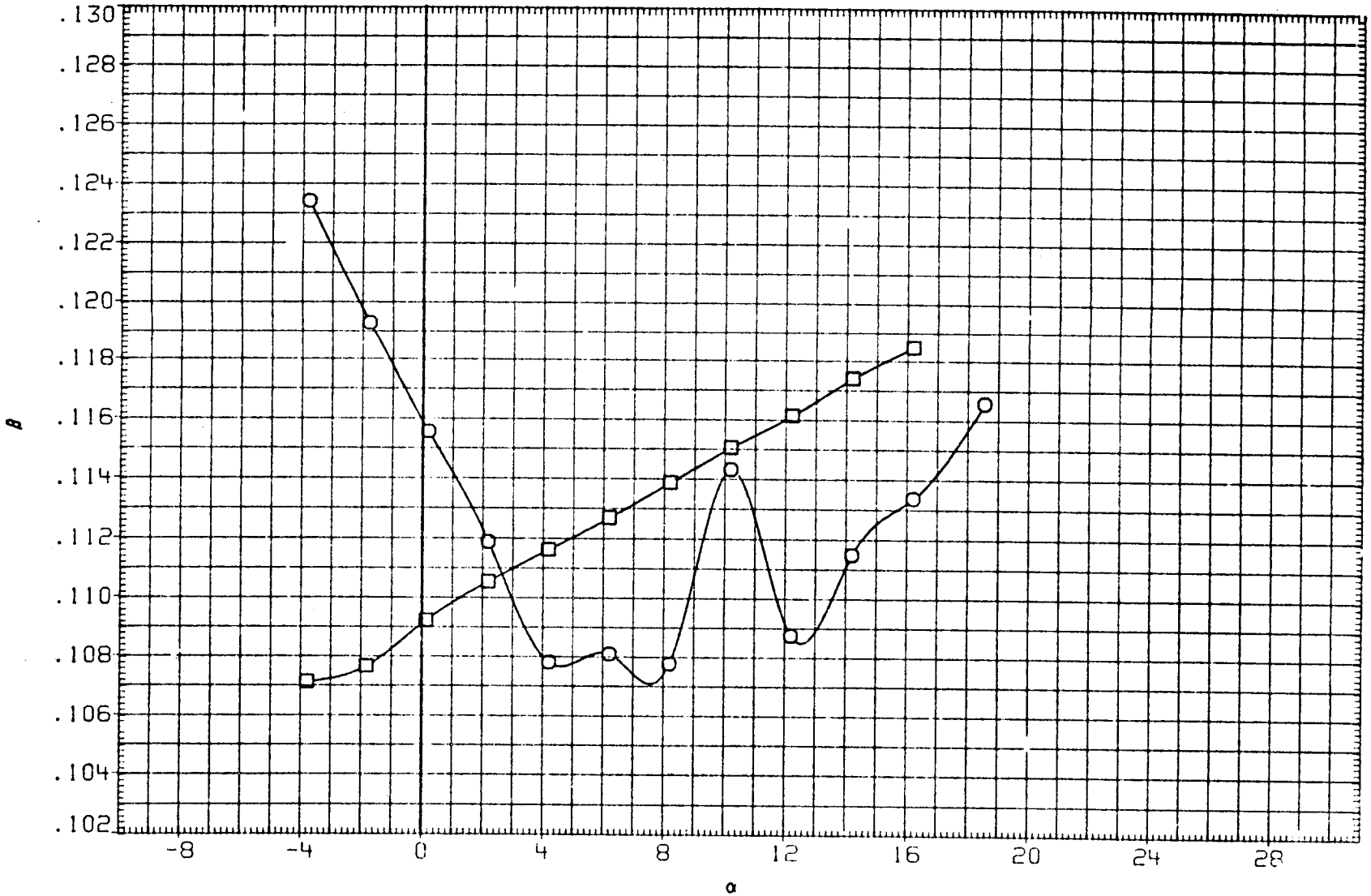


FIG. 82 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS
FLIGHT TEST PROBE

(A)MACH = .20 DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
BVR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
BVR017	□	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
BVR018	◇	DATA NOT AVAILABLE	.000	.000
BVR019	◁	DATA NOT AVAILABLE	.000	.000
BVR020	△	DATA NOT AVAILABLE	.000	.000
BVR003	⬠	DATA NOT AVAILABLE	.000	.000

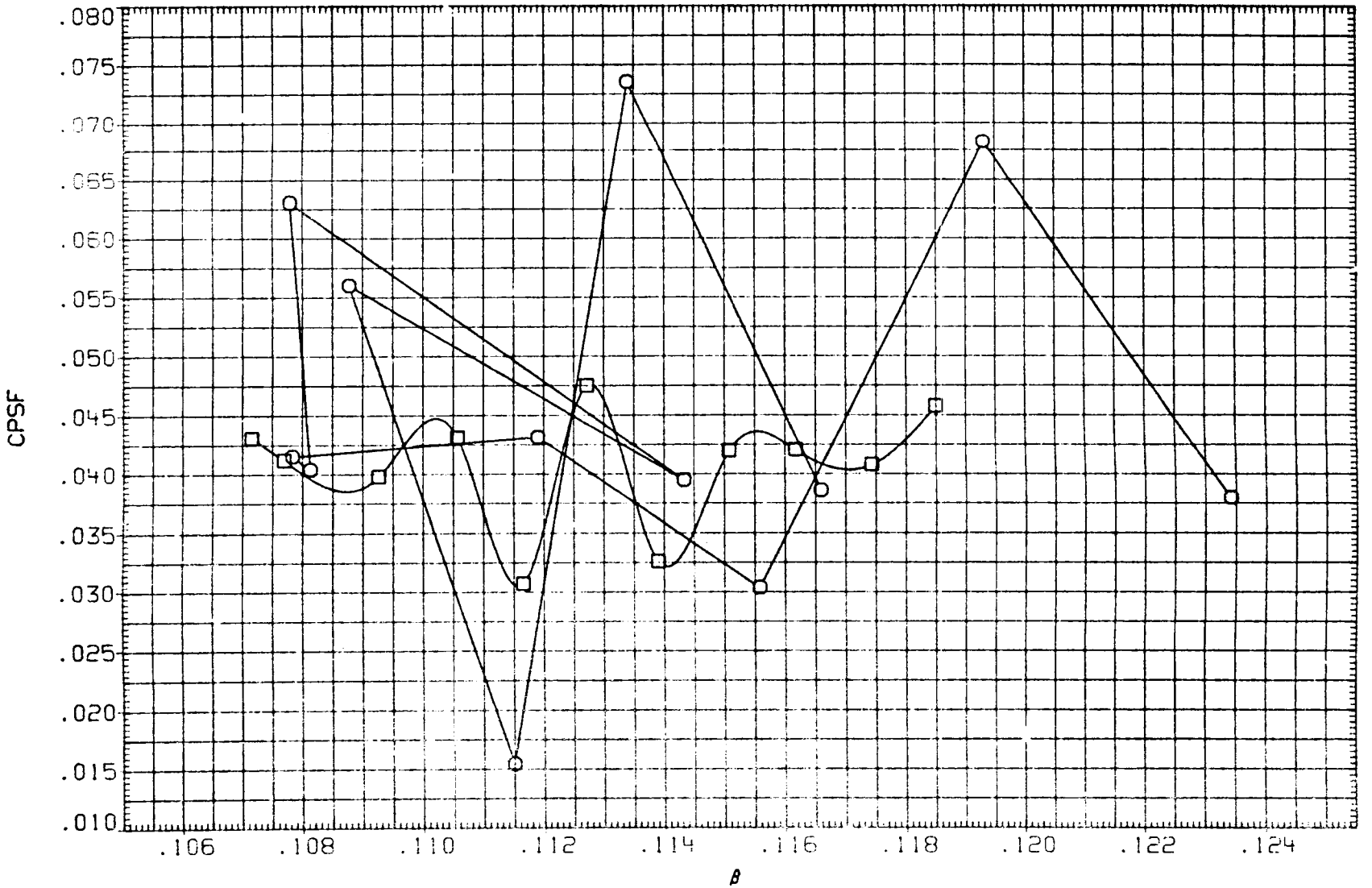


FIG. 82 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS FLIGHT TEST PROBE

(A)MACH = .20 DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
BVR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
BVR017	□	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
BVR018	◇	DATA NOT AVAILABLE	.000	.000
BVR019	△	DATA NOT AVAILABLE	.000	.000
BVR020	◁	DATA NOT AVAILABLE	.000	.000
BVR003	⬠	DATA NOT AVAILABLE	.000	.000

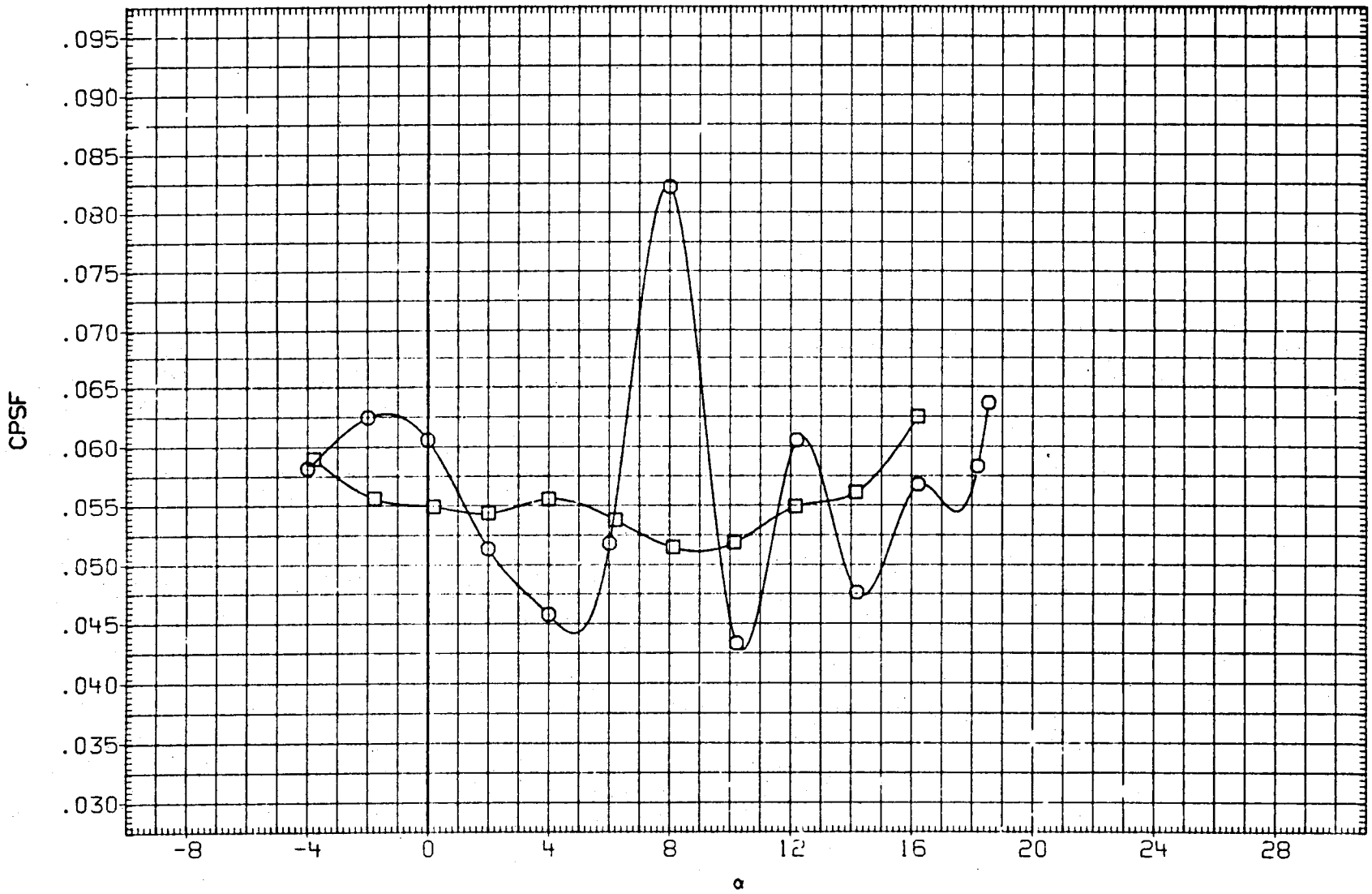


FIG. 82 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS FLIGHT TEST PROBE

(B)MACH = .25 DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
BVR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
BVR017	□	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
BVR018	◇	DATA NOT AVAILABLE	.000	.000
BVR019	△	DATA NOT AVAILABLE	.000	.000
BVR020	▷	DATA NOT AVAILABLE	.000	.000
BVR003	D	DATA NOT AVAILABLE	.000	.000

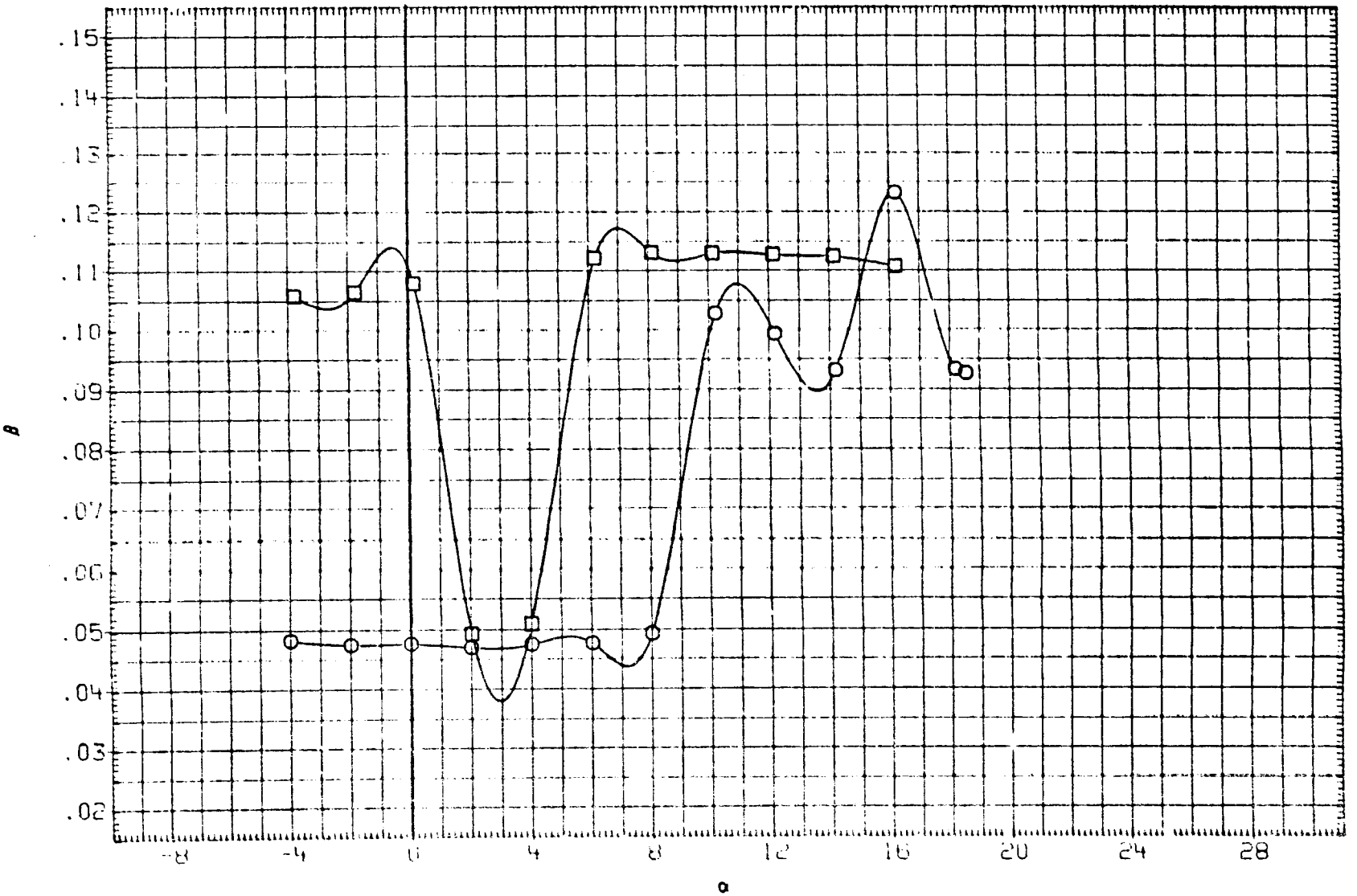


FIG. 82 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS FLIGHT TEST PROBE

(B) MACH = .25 DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
BVR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
BVR017	□	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
BVR018	◇	DATA NOT AVAILABLE	.000	.000
BVR019	△	DATA NOT AVAILABLE	.000	.000
BVR020	▷	DATA NOT AVAILABLE	.000	.000
BVR003	D	DATA NOT AVAILABLE	.000	.000

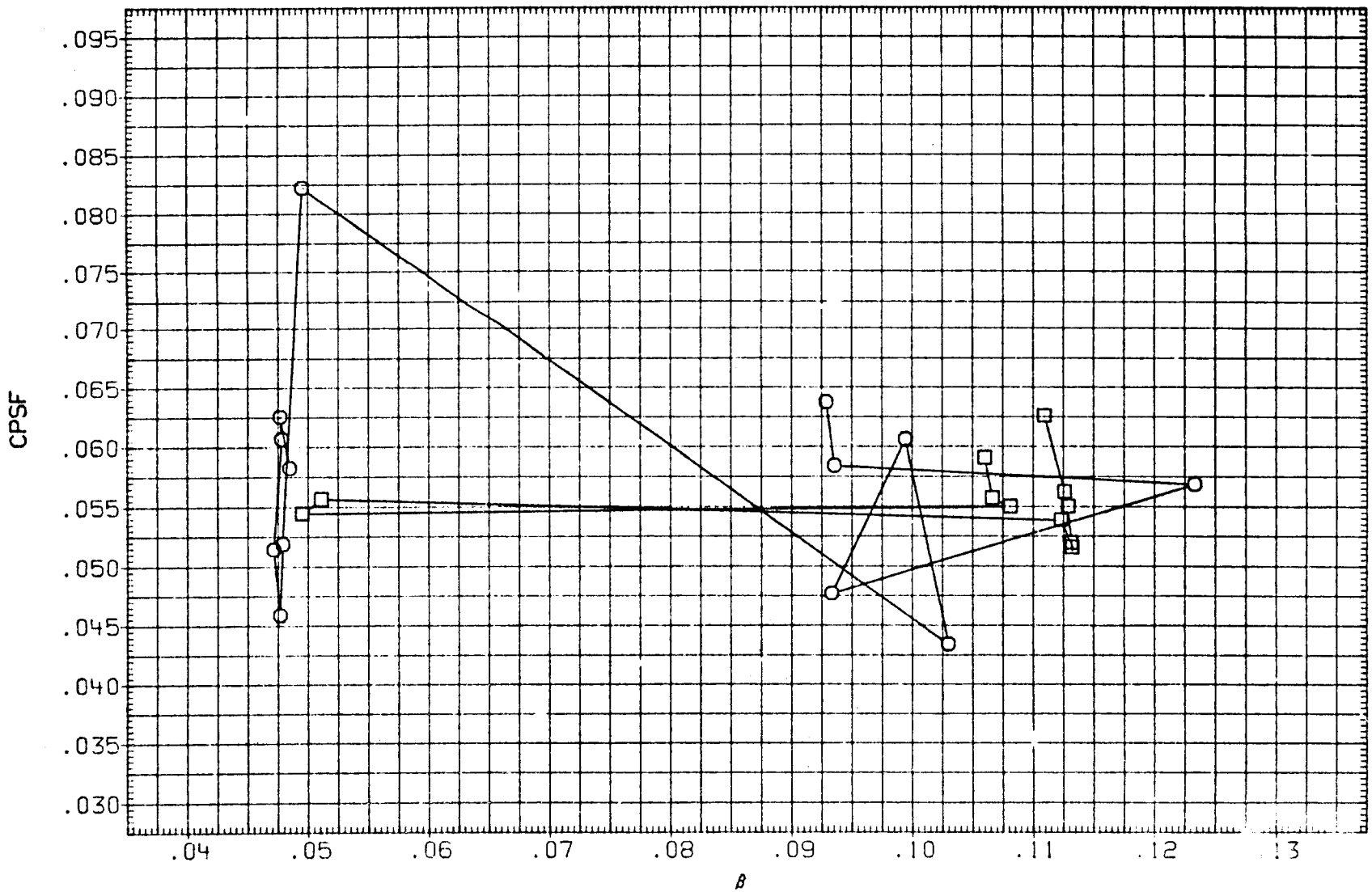


FIG. 82 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS
FLIGHT TEST PROBE

(B)MACH = .25 DATE 27 JUN 78 PAGE 213

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
BVR001	○	OA232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
BVR017	□	DATA NOT AVAILABLE	.000	.000
BVR018	◇	OA232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
BVR019	△	DATA NOT AVAILABLE	.000	.000
BVR020	▽	DATA NOT AVAILABLE	.000	.000
BVR003	D	OA232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000

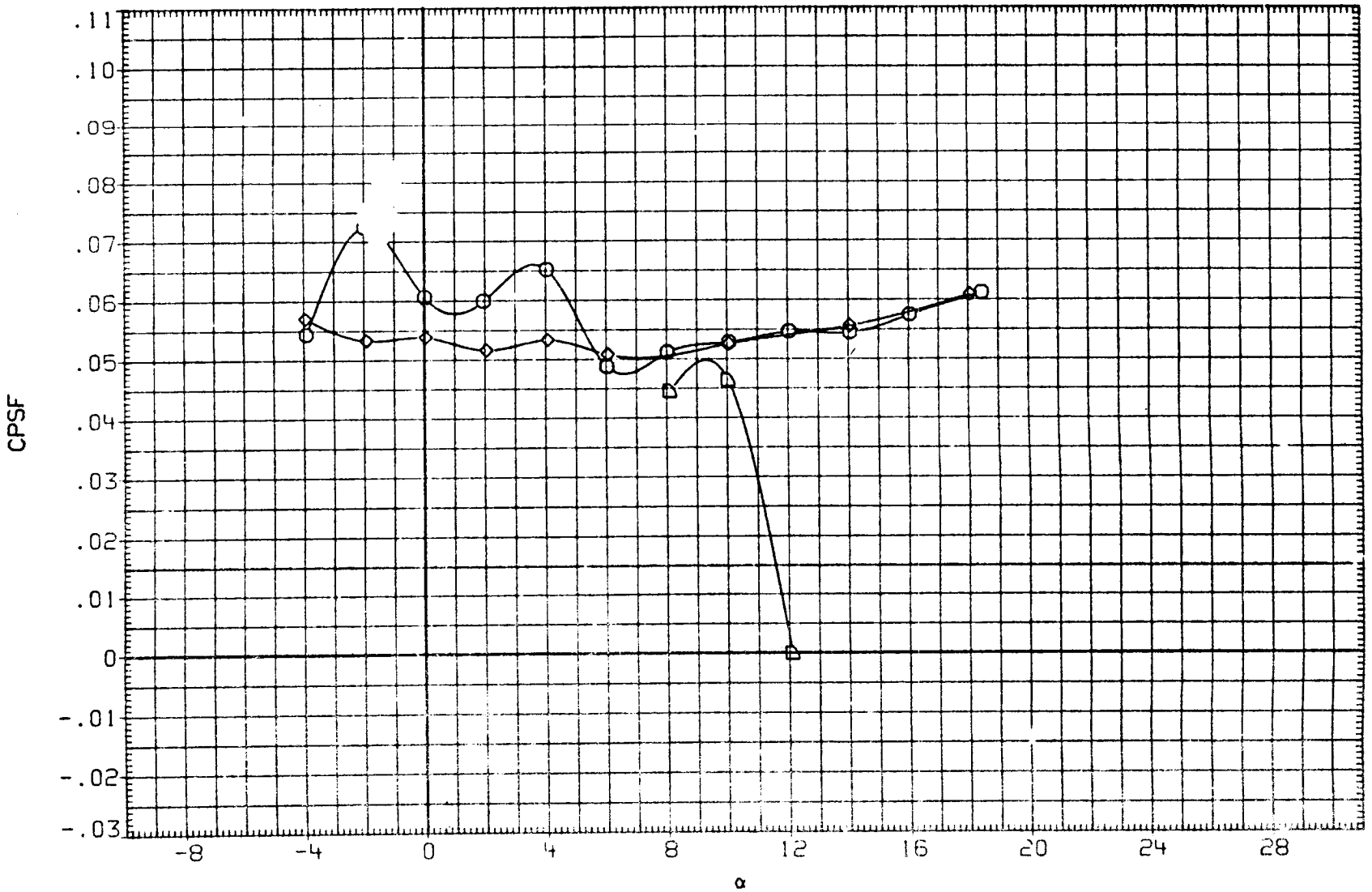


FIG. 82 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS
FLIGHT TEST PROBE

(C)MACH = .40 DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
BVR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
BVR017	□	DATA NOT AVAILABLE	.000	.000
BVR018	◇	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
BVR019	△	DATA NOT AVAILABLE	.000	.000
BVR020	◺	DATA NOT AVAILABLE	.000	.000
BVR003	D	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000

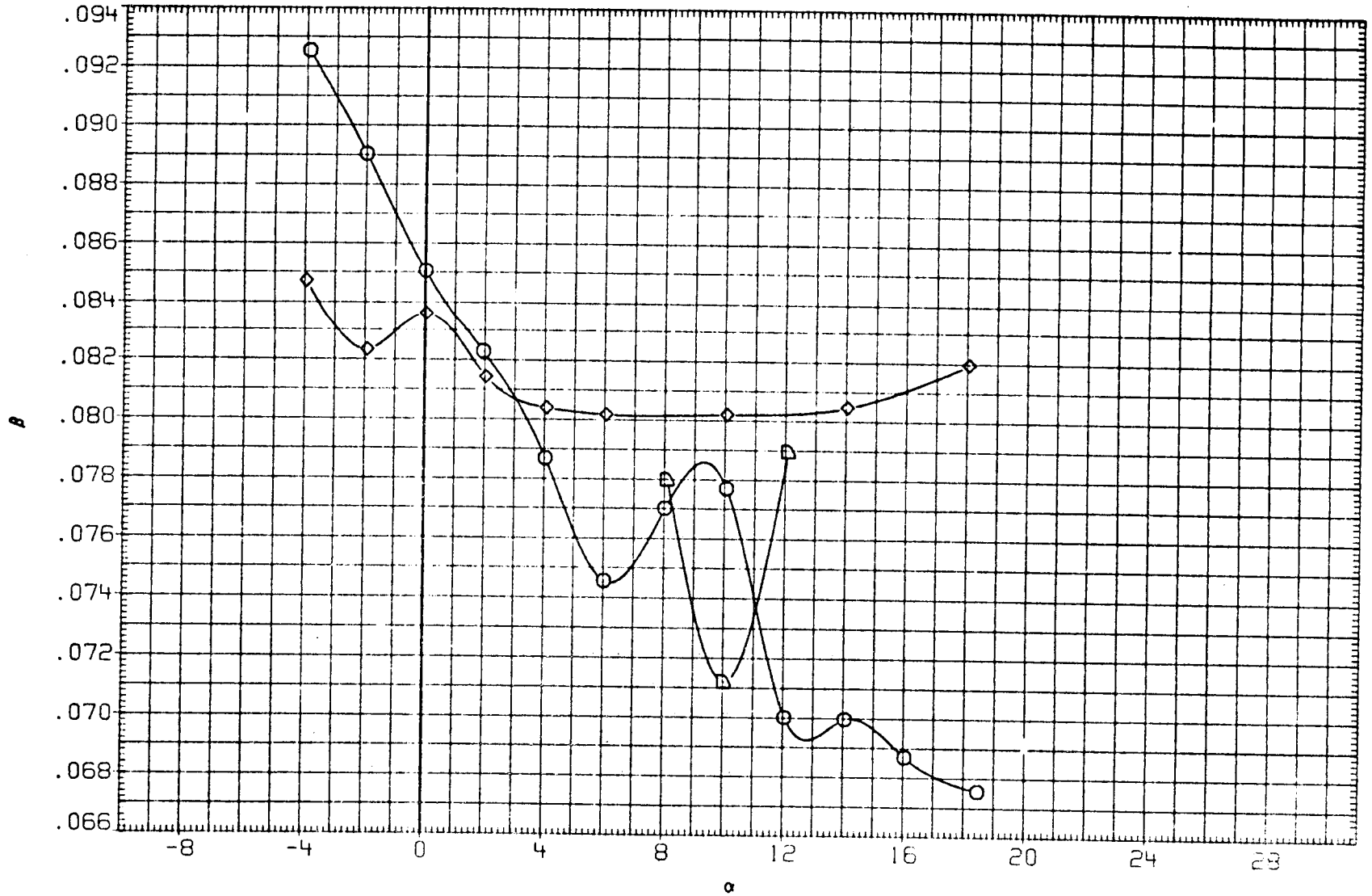


FIG. 82 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS FLIGHT TEST PROBE

(C)MACH = .40 DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
BVR001	○	0A232 AEDC 16T TF431	LFO.2P/S	RFO.2A	FTP	.000	.000
BVR017	□	DATA NOT AVAILABLE				.000	.000
BVR018	◇	0A232 AEDC 16T TF431	LA .2A	RFN.1S	FTP	.000	.000
BVR019	◁	DATA NOT AVAILABLE				.000	.000
BVR020	▷	DATA NOT AVAILABLE				.000	.000
BVR003	D	0A232 AEDC 16T TF431	LFO.2P/S	RFO.2A	FTP	.000	.000

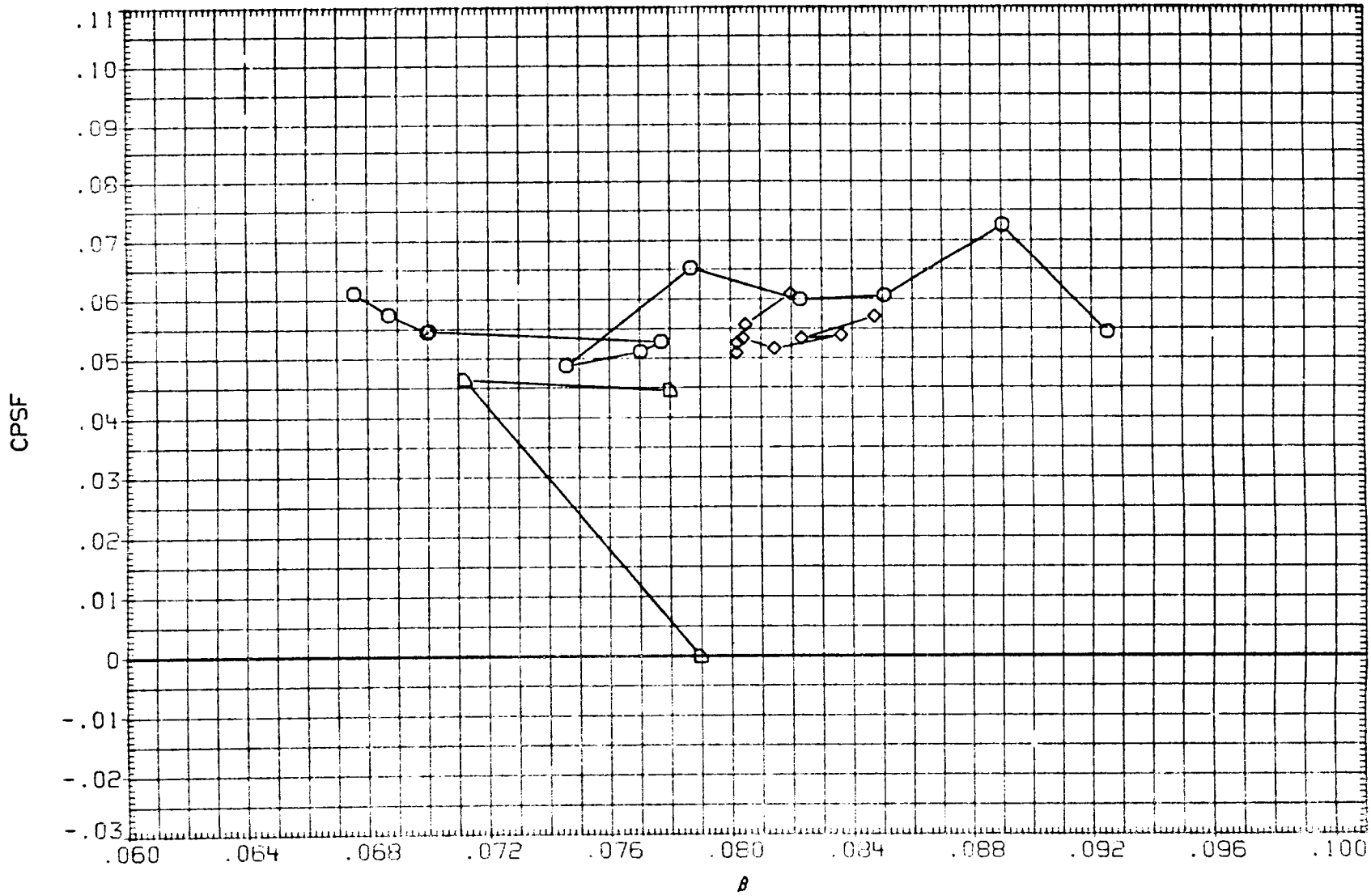


FIG. 82 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS FLIGHT TEST PROBE

(C)MACH = .40 DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
BVR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
BVR017	□	DATA NOT AVAILABLE	.000	.000
BVR018	◇	DATA NOT AVAILABLE	.000	.000
BVR019	△	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
BVR020	▽	DATA NOT AVAILABLE	.000	.000
BVR003	D	DATA NOT AVAILABLE	.000	.000

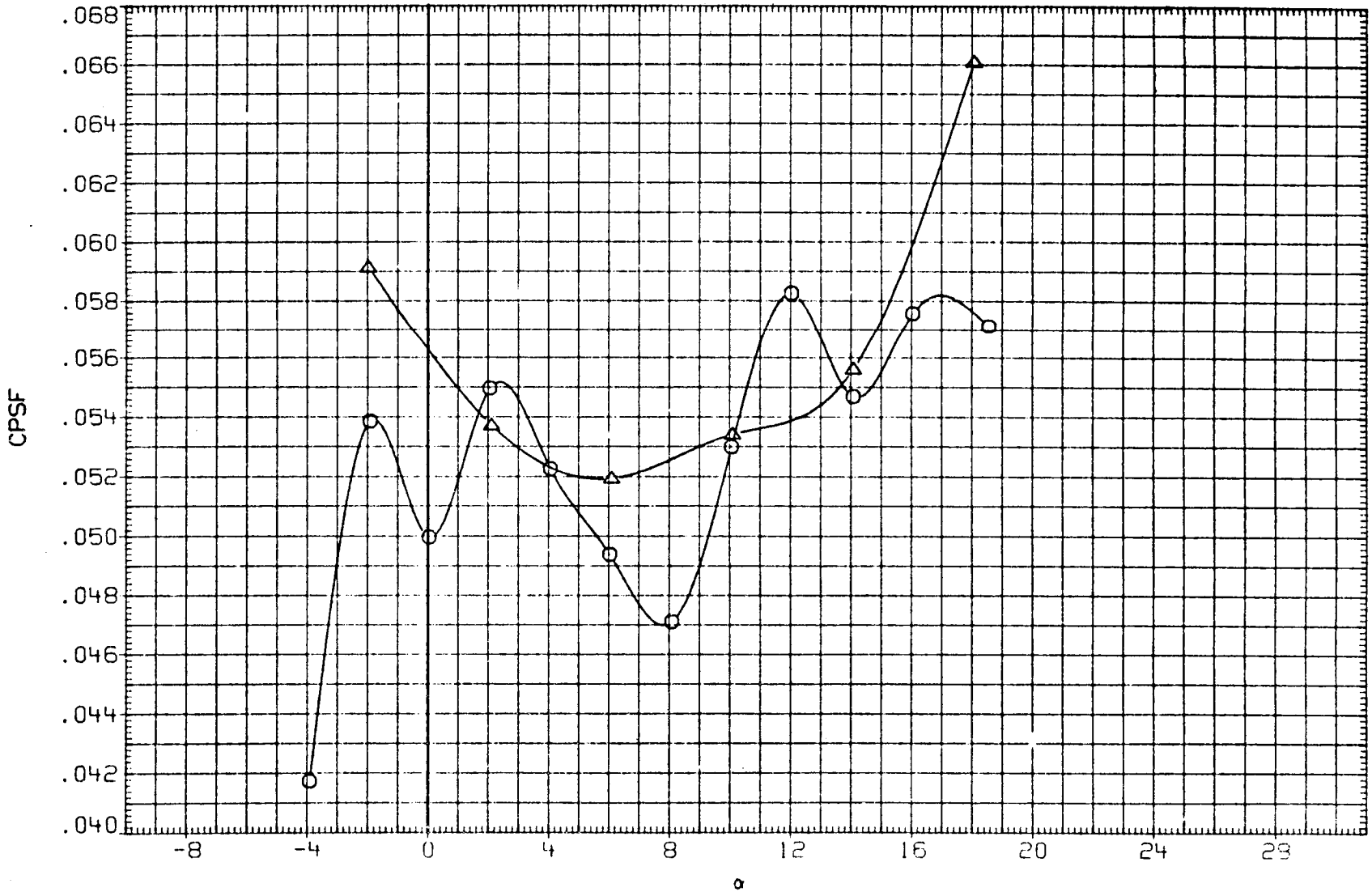


FIG. 82 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS FLIGHT TEST PROBE

(D)MACH = .60 DATE 27 JUN 78 PAGE 217

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
BVR001	○	OA232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
BVR017	□	DATA NOT AVAILABLE	.000	.000
BVR018	◇	DATA NOT AVAILABLE	.000	.000
BVR019	△	OA232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
BVR020	▽	DATA NOT AVAILABLE	.000	.000
BVR003	D	DATA NOT AVAILABLE	.000	.000

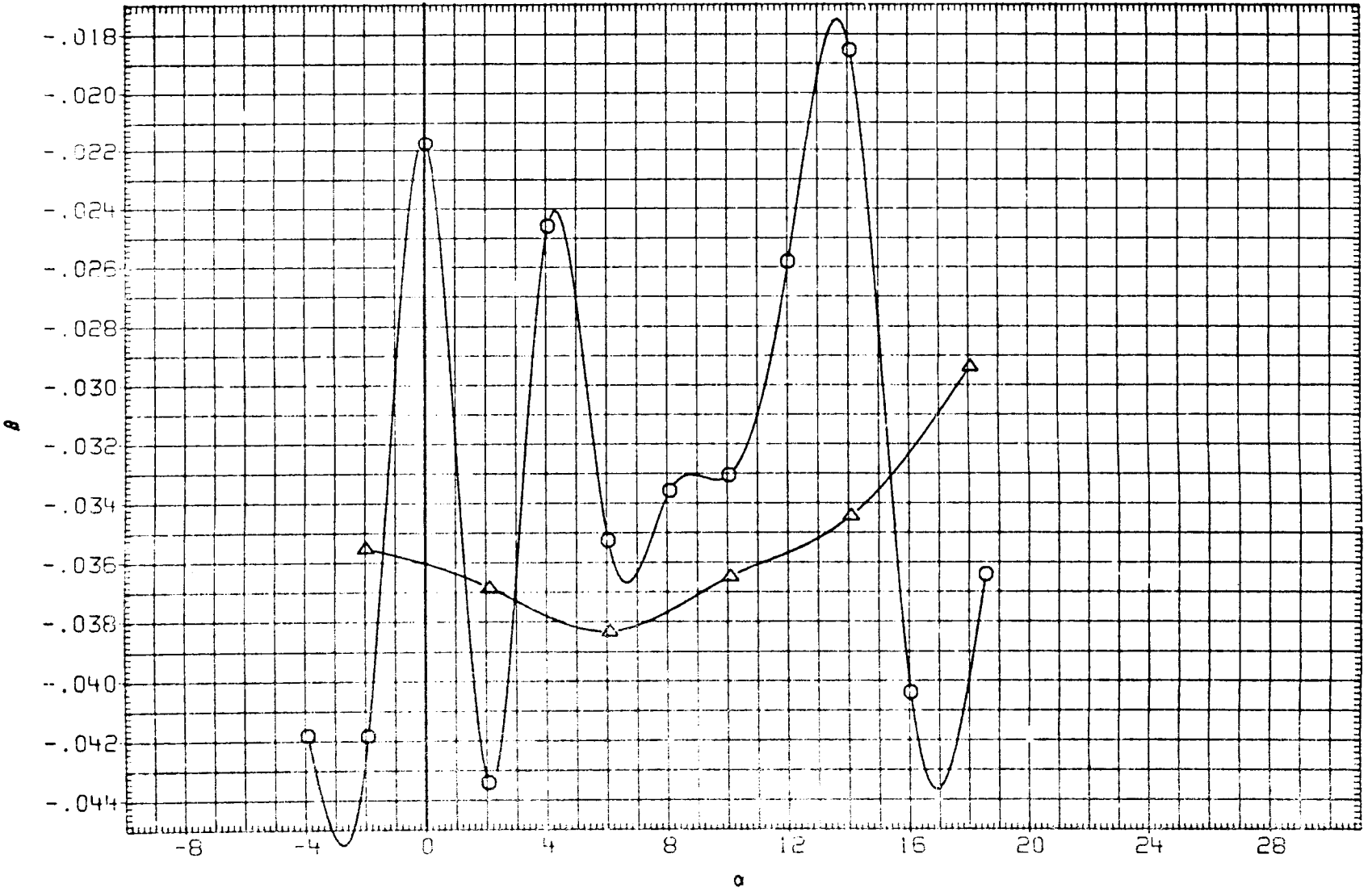


FIG. 82 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS FLIGHT TEST PROBE

(D) MACH = .60 DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
BVR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
BVR017	□	DATA NOT AVAILABLE	.000	.000
BVR018	◇	DATA NOT AVAILABLE	.000	.000
BVR019	△	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
BVR020	◁	DATA NOT AVAILABLE	.000	.000
BVR003	D	DATA NOT AVAILABLE	.000	.000

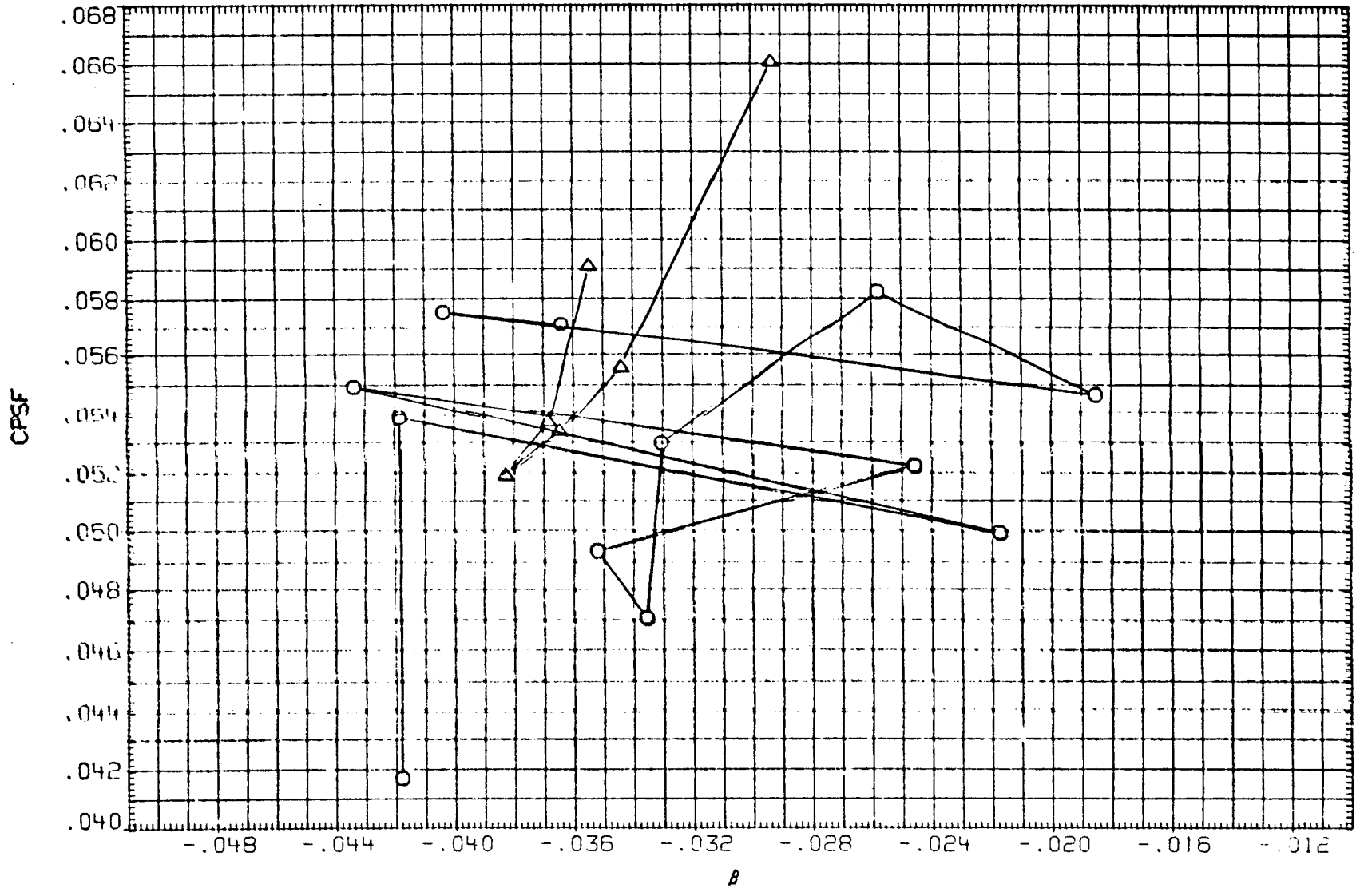


FIG. 82 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS FLIGHT TEST PROBE

(D)MACH = .60 DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
BVR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
BVR017	□	DATA NOT AVAILABLE	.000	.000
BVR018	◇	DATA NOT AVAILABLE	.000	.000
BVR019	△	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
BVR020	◁	DATA NOT AVAILABLE	.000	.000
BVR003	⬠	DATA NOT AVAILABLE	.000	.000

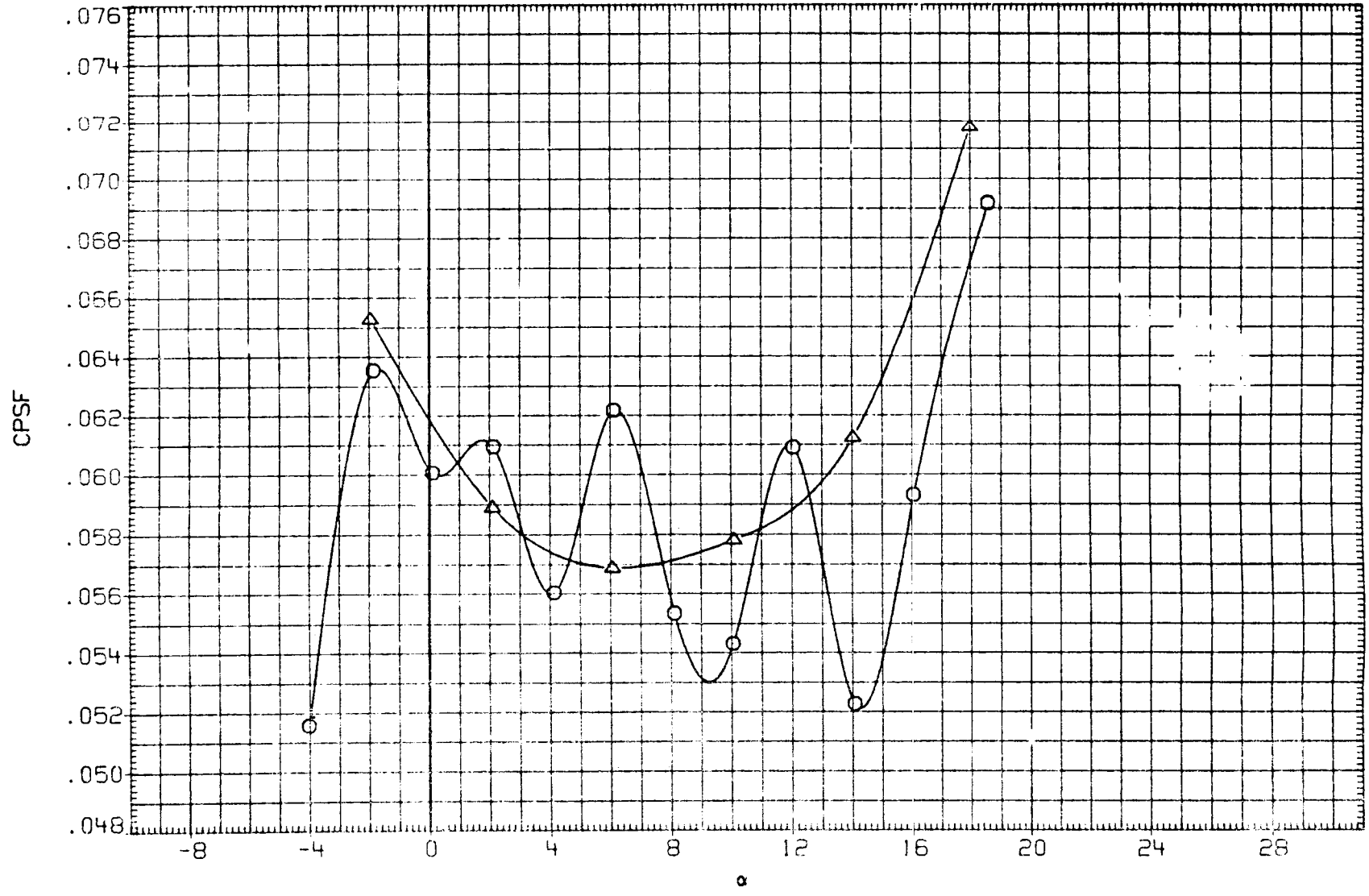


FIG. 82 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS FLIGHT TEST PROBE

(E)MACH = .70 DATE 27 JUN 78 PAGE 220

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
BVR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
BVR017	□	DATA NOT AVAILABLE	.000	.000
BVR018	◇	DATA NOT AVAILABLE	.000	.000
BVR019	△	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
BVR020	◁	DATA NOT AVAILABLE	.000	.000
BVR003	D	DATA NOT AVAILABLE	.000	.000

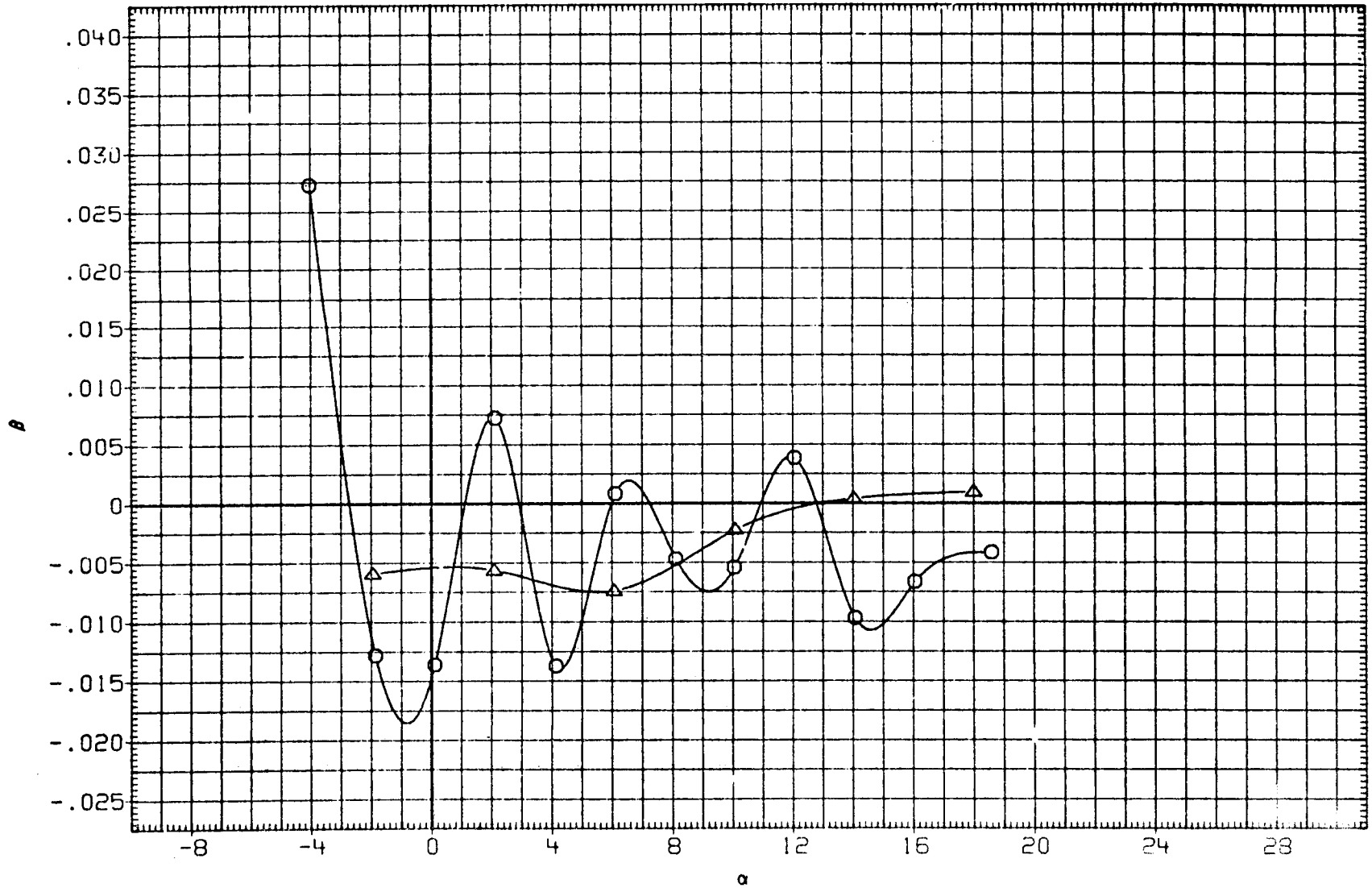


FIG. 82 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS FLIGHT TEST PROBE

(E)MACH = .70 DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
BVR001	○	OA232 AEDC 16T TF431 LF0.2P/S RF0.2A FTP	.000	.000
BVR017	□	DATA NOT AVAILABLE	.000	.000
BVR018	◇	DATA NOT AVAILABLE	.000	.000
BVR019	△	OA232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
BVR020	◁	DATA NOT AVAILABLE	.000	.000
BVR003	⬠	DATA NOT AVAILABLE	.000	.000

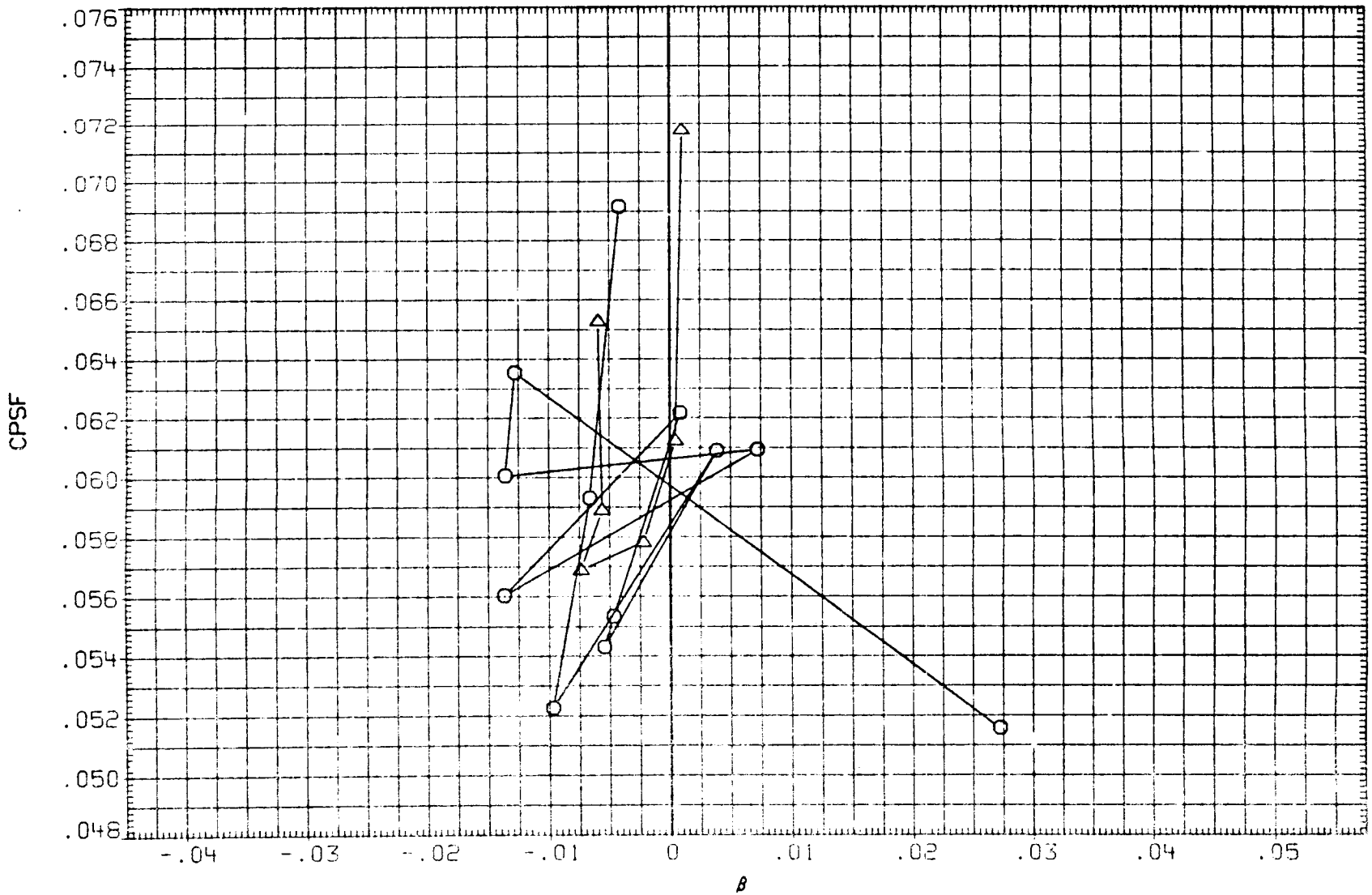


FIG. 82 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS
FLIGHT TEST PROBE

(E)MACH = .70 DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
BVR001	○	OA232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
BVR017	□	DATA NOT AVAILABLE	.000	.000
BVR018	◇	DATA NOT AVAILABLE	.000	.000
BVR019	△	DATA NOT AVAILABLE	.000	.000
BVR020	▷	OA232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
BVR003	D	DATA NOT AVAILABLE	.000	.000

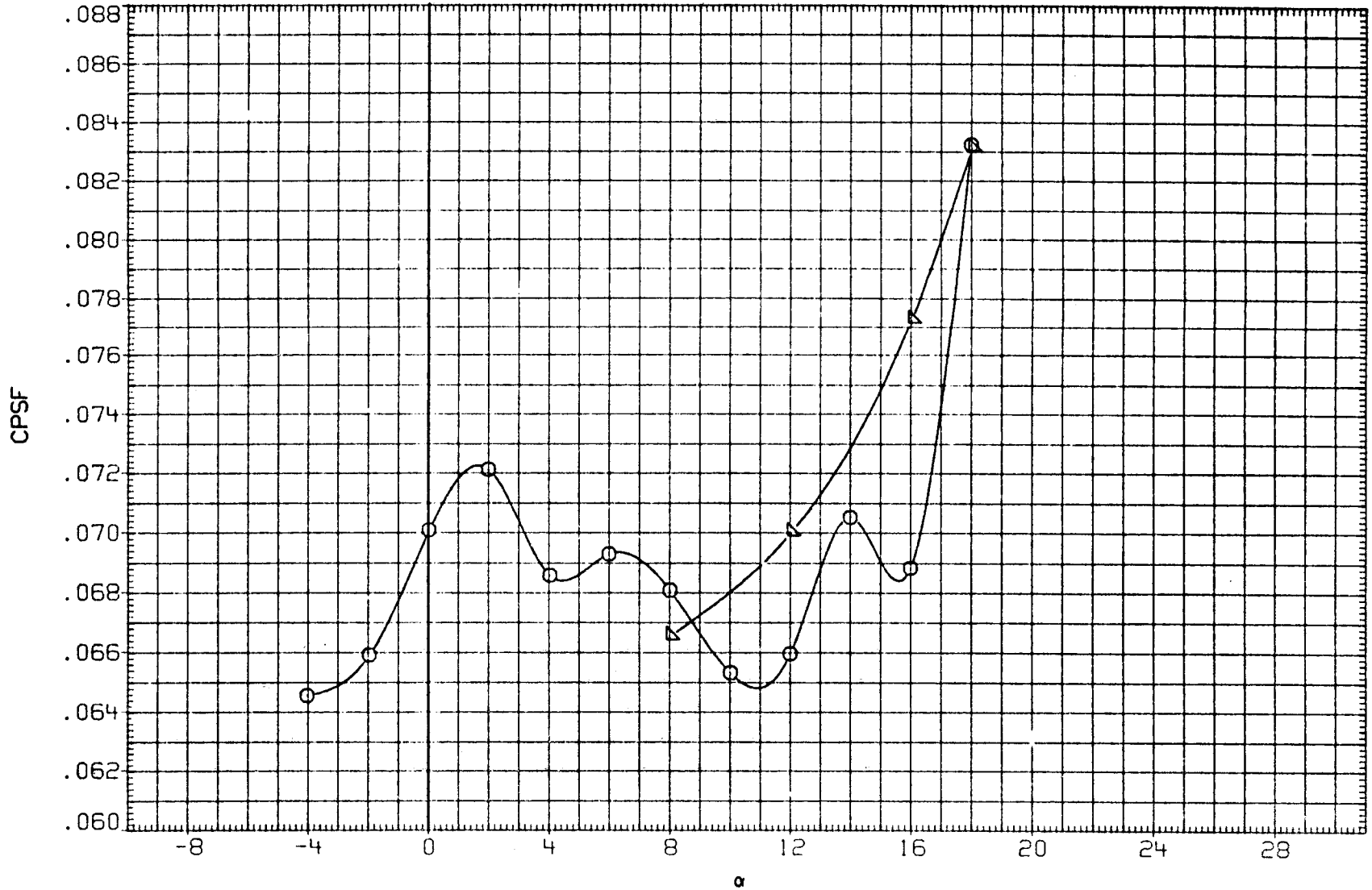


FIG. 82 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS FLIGHT TEST PROBE

(F)MACH = .80 DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
BVR001	○	OA232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
BVR017	□	DATA NOT AVAILABLE	.000	.000
BVR018	◇	DATA NOT AVAILABLE	.000	.000
BVR019	◁	DATA NOT AVAILABLE	.000	.000
BVR020	△	OA232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
BVR003	▷	DATA NOT AVAILABLE	.000	.000

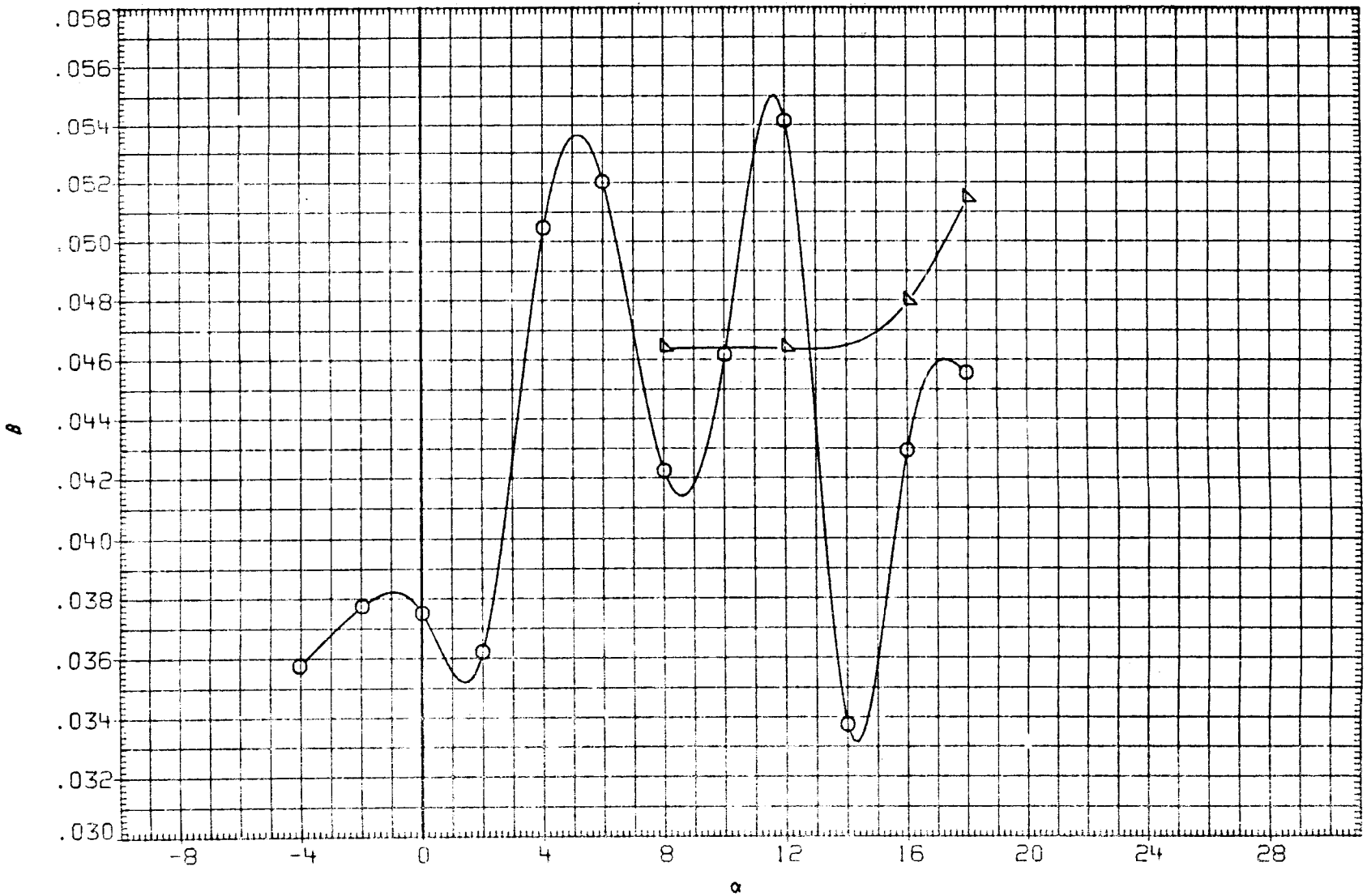


FIG. 82 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS FLIGHT TEST PROBE

(F)MACH = .80 DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
BVR001	○	OA232 AEDC 16T TF431 LF0.2P/S RF0.2A FTP	.000	.000
BVR017	□	DATA NOT AVAILABLE	.000	.000
BVR018	◇	DATA NOT AVAILABLE	.000	.000
BVR019	△	DATA NOT AVAILABLE	.000	.000
BVR020	◁	OA232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
BVR003	▷	DATA NOT AVAILABLE	.000	.000

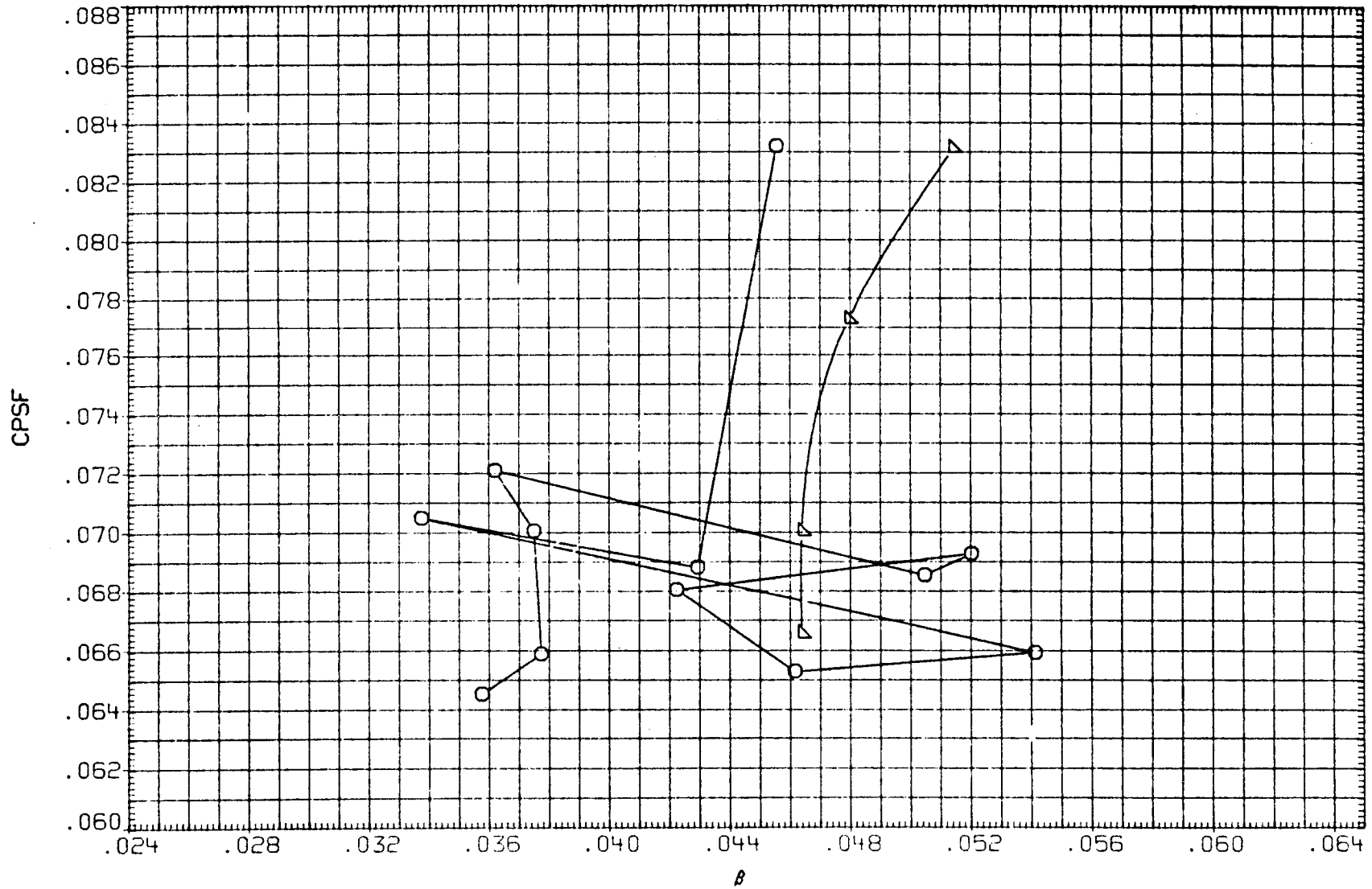


FIG. 82 EFFECT OF THE S-FAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS FLIGHT TEST PROBE

(F)MACH = .80 DATE 27 JUN 78 PAGE 225

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
DVR001	○	OA232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
DVR017	□	OA232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
DVR018	◇	DATA NOT AVAILABLE	.000	.000
DVR019	▷	DATA NOT AVAILABLE	.000	.000
DVR020	▽	DATA NOT AVAILABLE	.000	.000
DVR014	D	OA232 AEDC 16T TF431 LA .2A RFN.1S	.000	.000

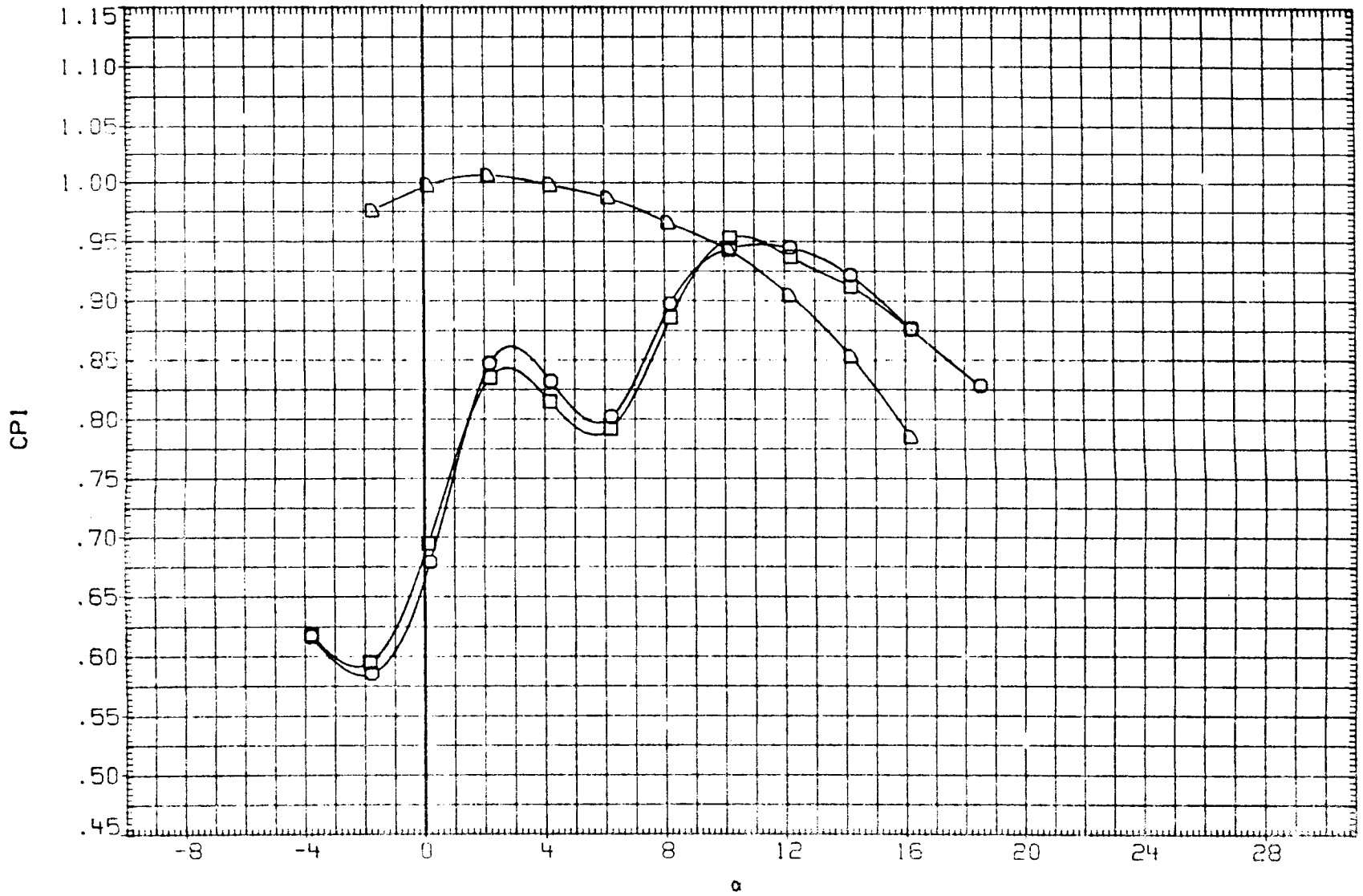


FIG. 83 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS NOSE FLUSH PORT TAPS 1, 3, 4, 5 AND 6

(A) MACH = .20

DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
DVR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
DVR017	□	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
DVR018	◇	DATA NOT AVAILABLE	.000	.000
DVR019	△	DATA NOT AVAILABLE	.000	.000
DVR020	▽	DATA NOT AVAILABLE	.000	.000
DVR014	D	0A232 AEDC 16T TF431 LA .2A RFN.1S	.000	.000

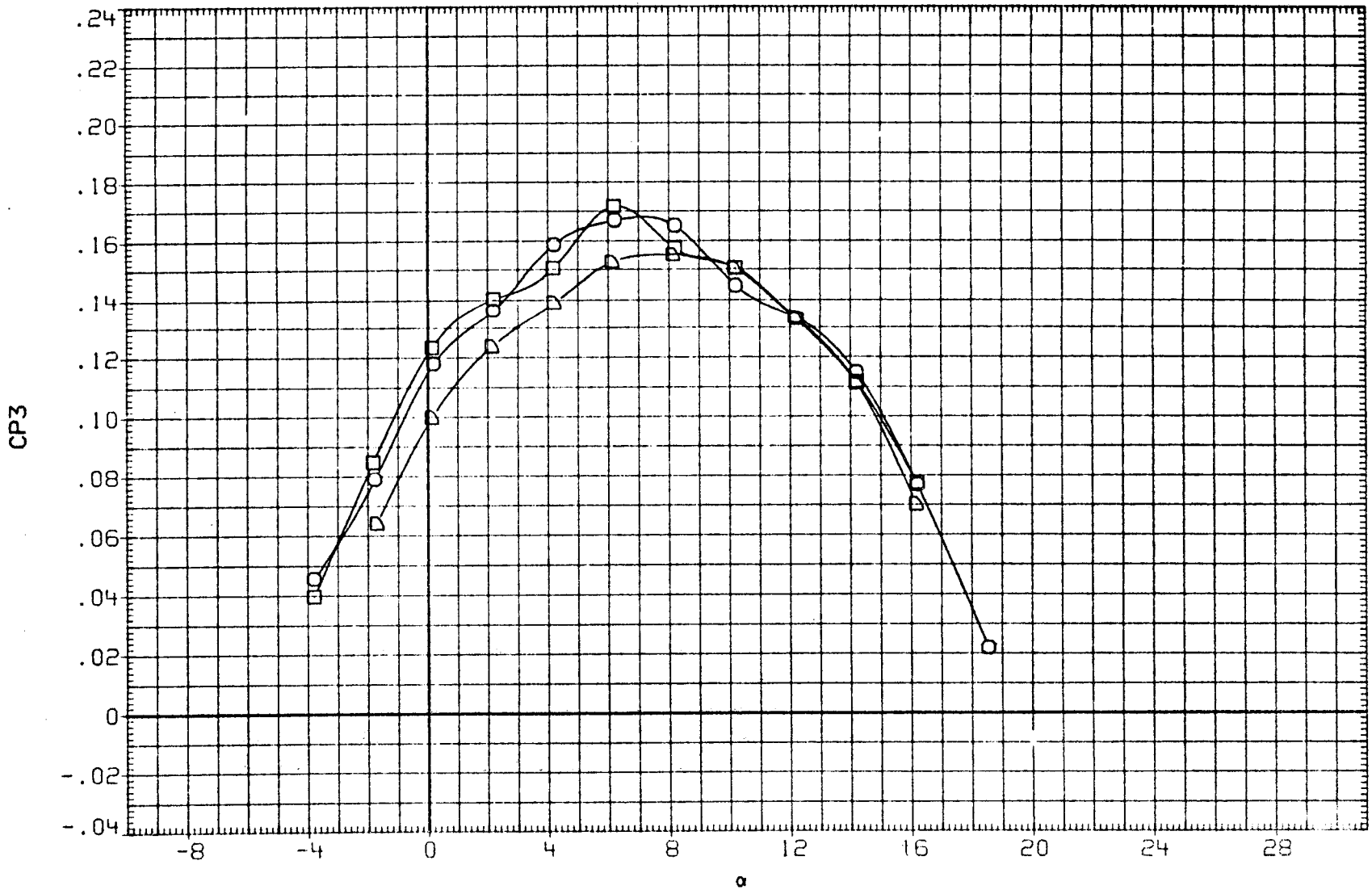


FIG. 83 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS NOSE FLUSH PORT TAPS 1, 3, 4, 5 AND 6

(A) MACH = .20 DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
DVR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
DVR017	□	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
DVR018	◇	DATA NOT AVAILABLE	.000	.000
DVR019	◁	DATA NOT AVAILABLE	.000	.000
DVR020	△	DATA NOT AVAILABLE	.000	.000
DVR014	⬠	0A232 AEDC 16T TF431 LA .2A RFN.1S	.000	.000

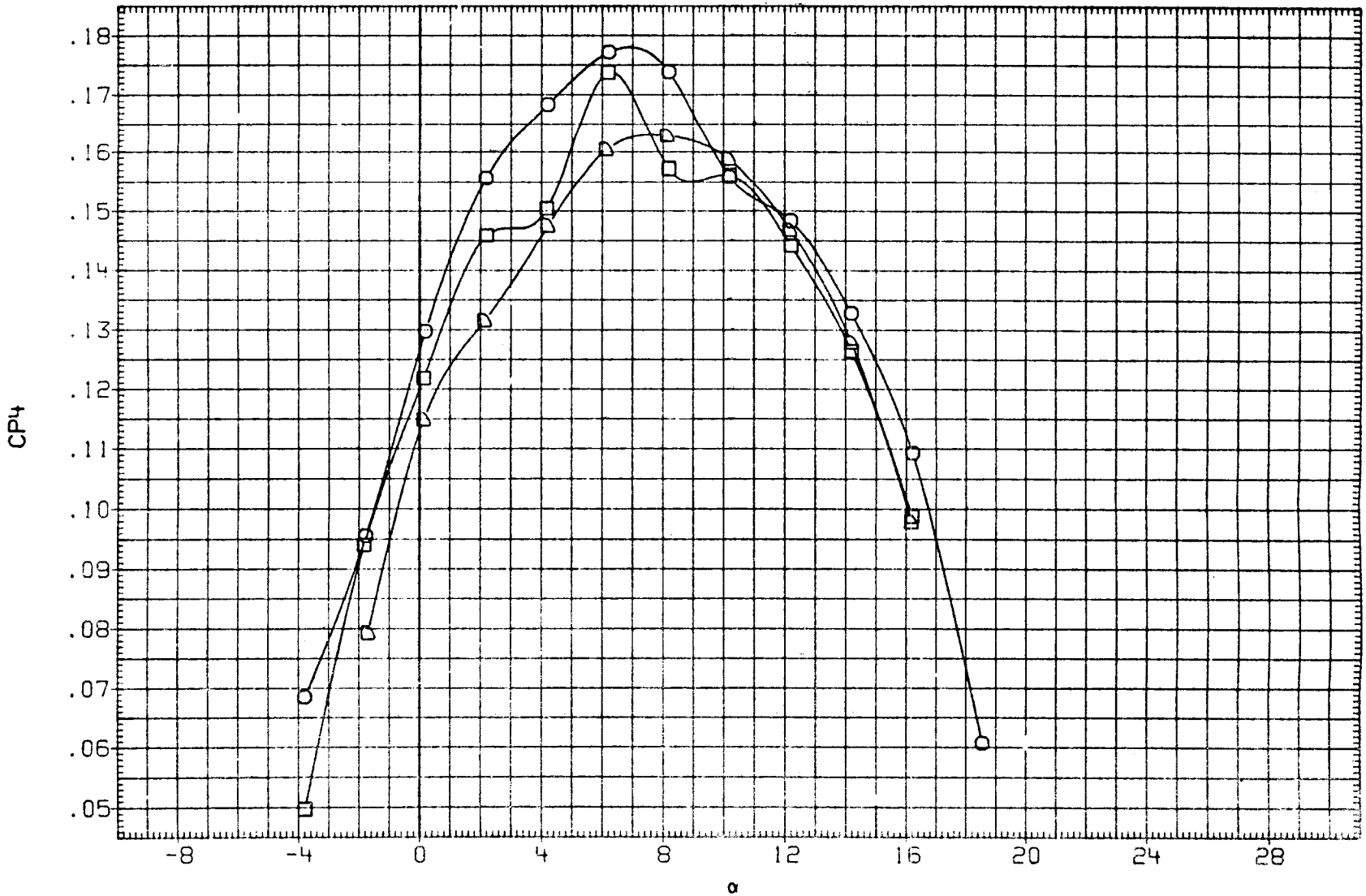


FIG. 83 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS
NOSE FLUSH PORT TAPS 1, 3, 4, 5 AND 6

(A) MACH = .20 DATE 27 JUN 78 PAGE 228

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
DVR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
DVR017	□	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
DVR018	◇	DATA NOT AVAILABLE	.000	.000
DVR019	△	DATA NOT AVAILABLE	.000	.000
DVR020	▷	DATA NOT AVAILABLE	.000	.000
DVR014	D	0A232 AEDC 16T TF431 LA .2A RFN.1S	.000	.000

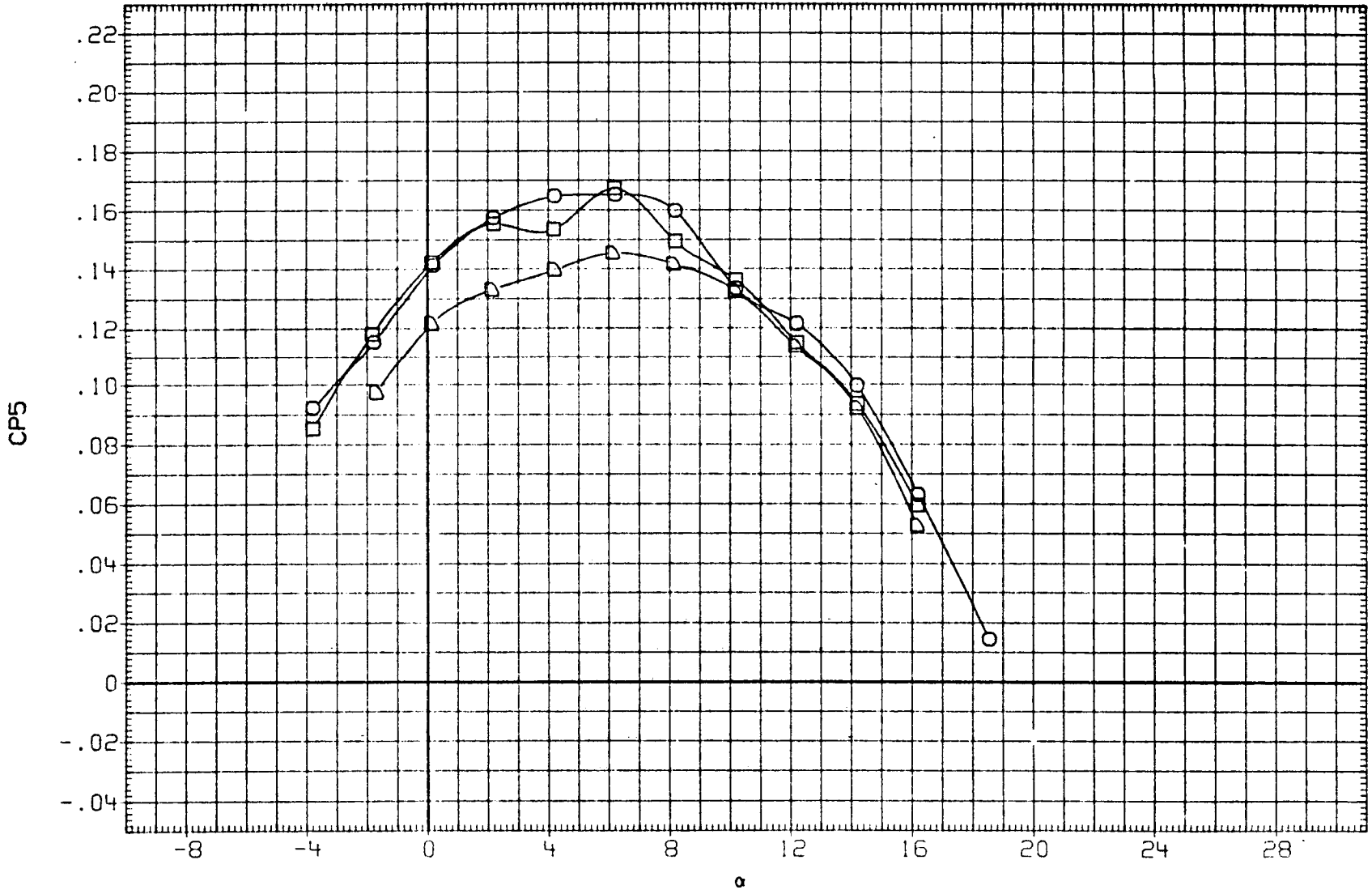


FIG. 83 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS NOSE FLUSH PORT TAPS 1, 3, 4, 5 AND 6

(A)MACH = .20 DATE 27 JUN 78 PAGE 229

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
DVR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
DVR017	□	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
DVR018	◇	DATA NOT AVAILABLE	.000	.000
DVR019	△	DATA NOT AVAILABLE	.000	.000
DVR020	▽	DATA NOT AVAILABLE	.000	.000
DVR014	D	0A232 AEDC 16T TF431 LA .2A RFN.1S	.000	.000

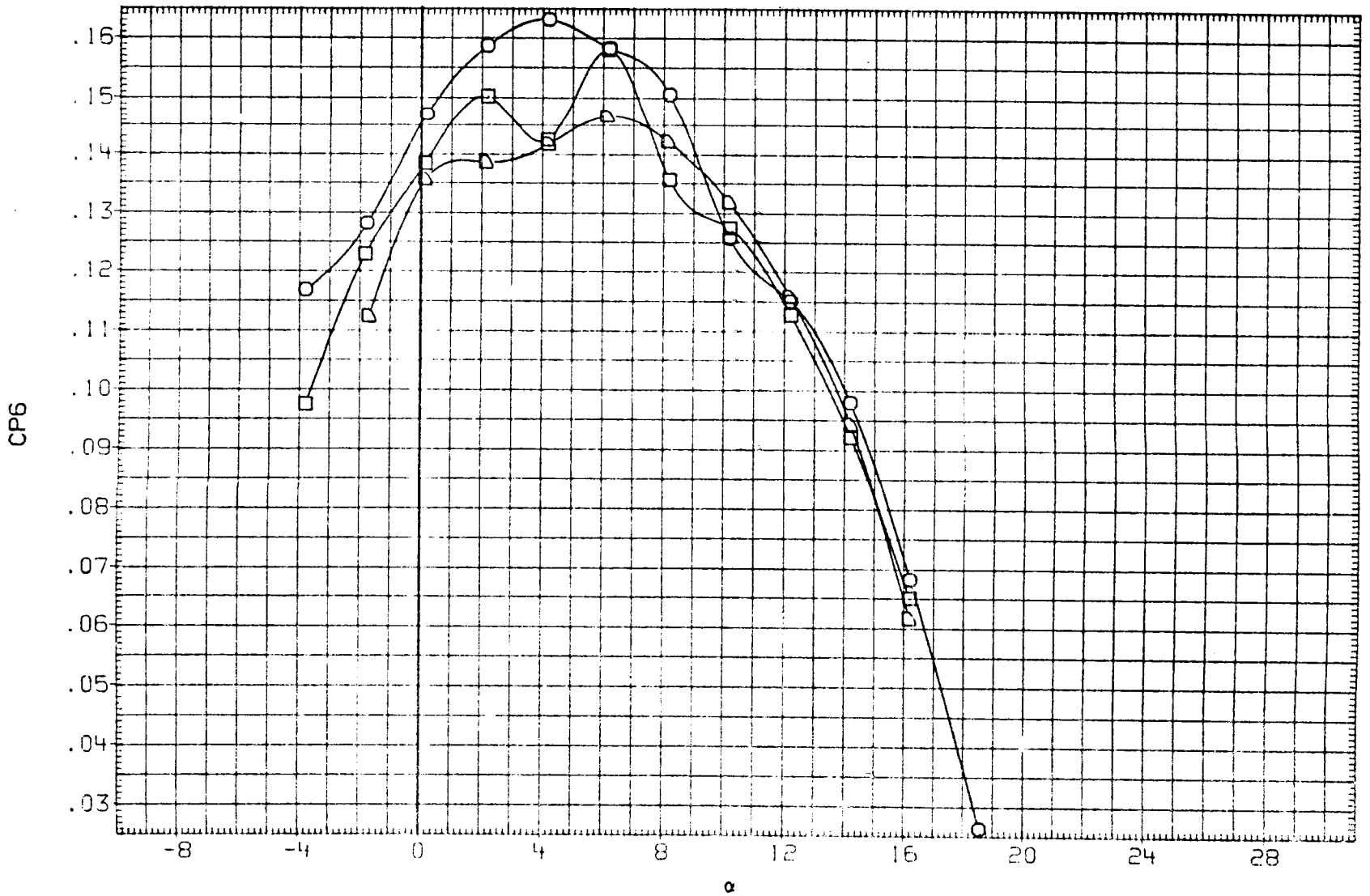


FIG. 83 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS NOSE FLUSH PORT TAPS 1, 3, 4, 5 AND 6

(A) MACH = .20 DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
DVR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
DVR017	□	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
DVR018	◇	DATA NOT AVAILABLE	.000	.000
DVR019	△	DATA NOT AVAILABLE	.000	.000
DVR020	◁	DATA NOT AVAILABLE	.000	.000
DVR014	D	DATA NOT AVAILABLE	.000	.000

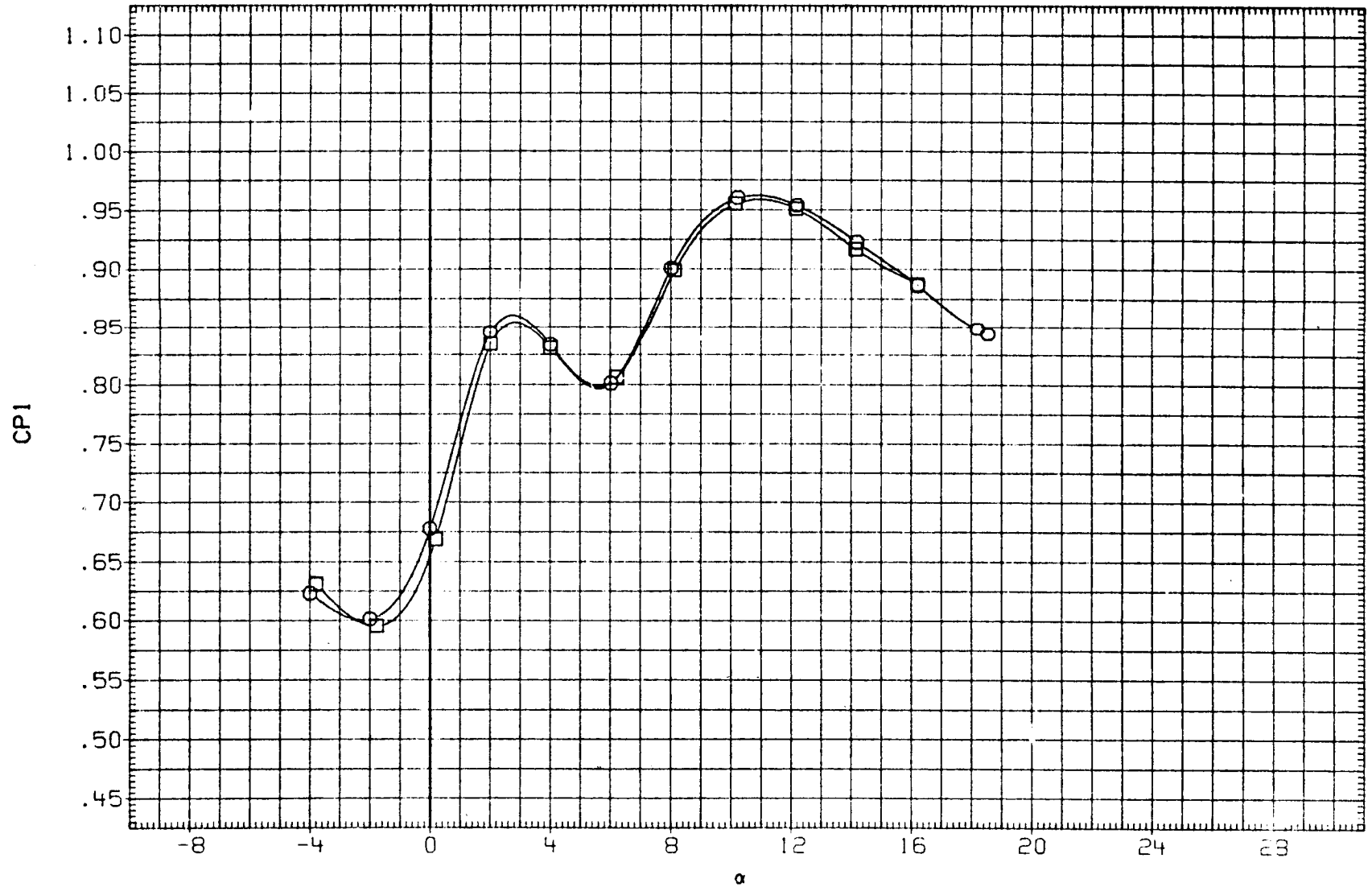


FIG. 83 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS NOSE FLUSH PORT TAPS 1, 3, 4, 5 AND 6

(B)MACH = .25 DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
DVR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
DVR017	□	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
DVR018	◇	DATA NOT AVAILABLE	.000	.000
DVR019	△	DATA NOT AVAILABLE	.000	.000
DVR020	◁	DATA NOT AVAILABLE	.000	.000
DVR014	D	DATA NOT AVAILABLE	.000	.000

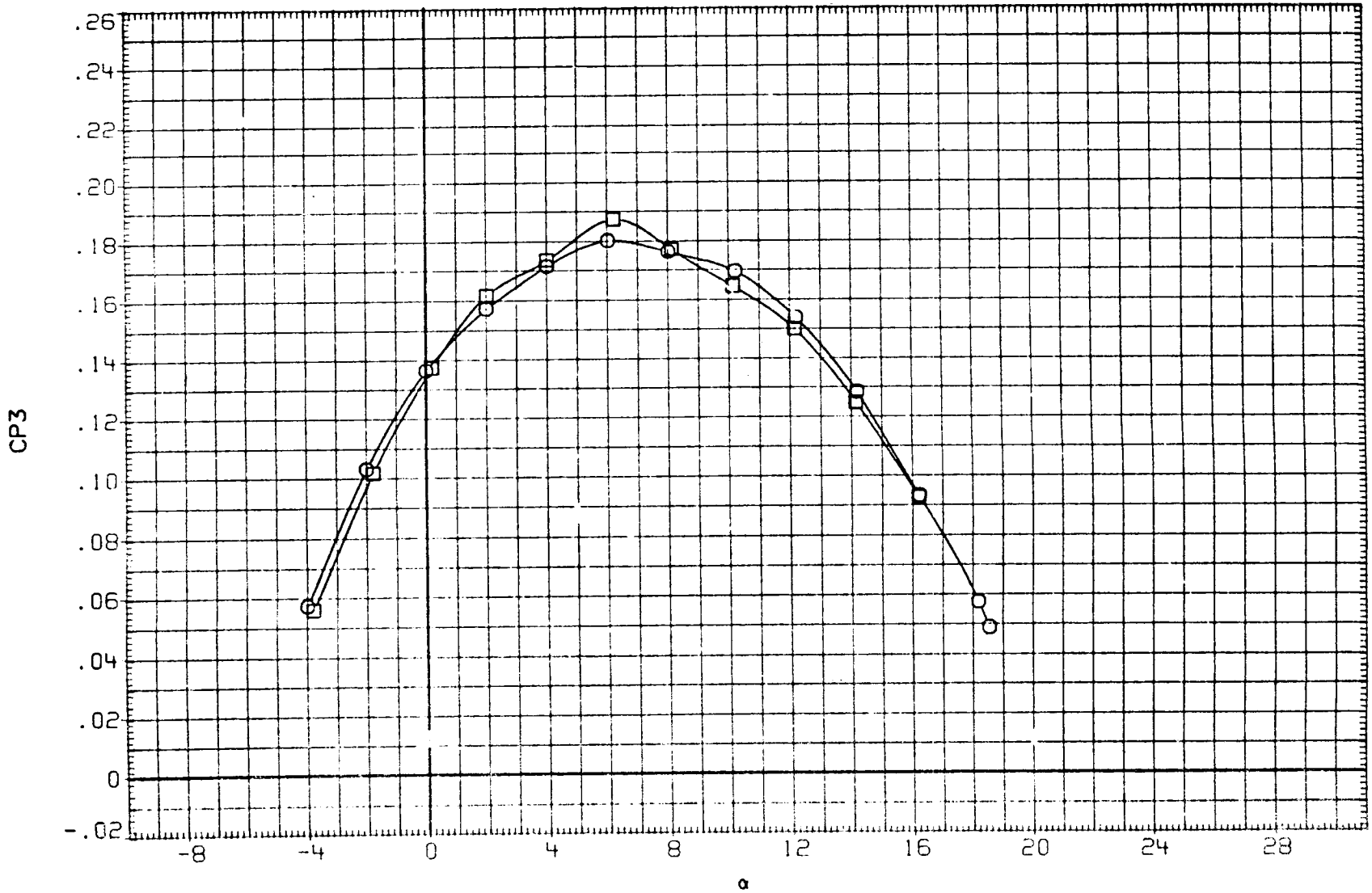


FIG. 83 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS
NOSE FLUSH PORT TAPS 1, 3, 4, 5 AND 6

(B)MACH = .25 DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
DVR001	○	OA232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
DVR017	□	OA232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
DVR018	◇	DATA NOT AVAILABLE	.000	.000
DVR019	△	DATA NOT AVAILABLE	.000	.000
DVR020	▷	DATA NOT AVAILABLE	.000	.000
DVR014	D	DATA NOT AVAILABLE	.000	.000

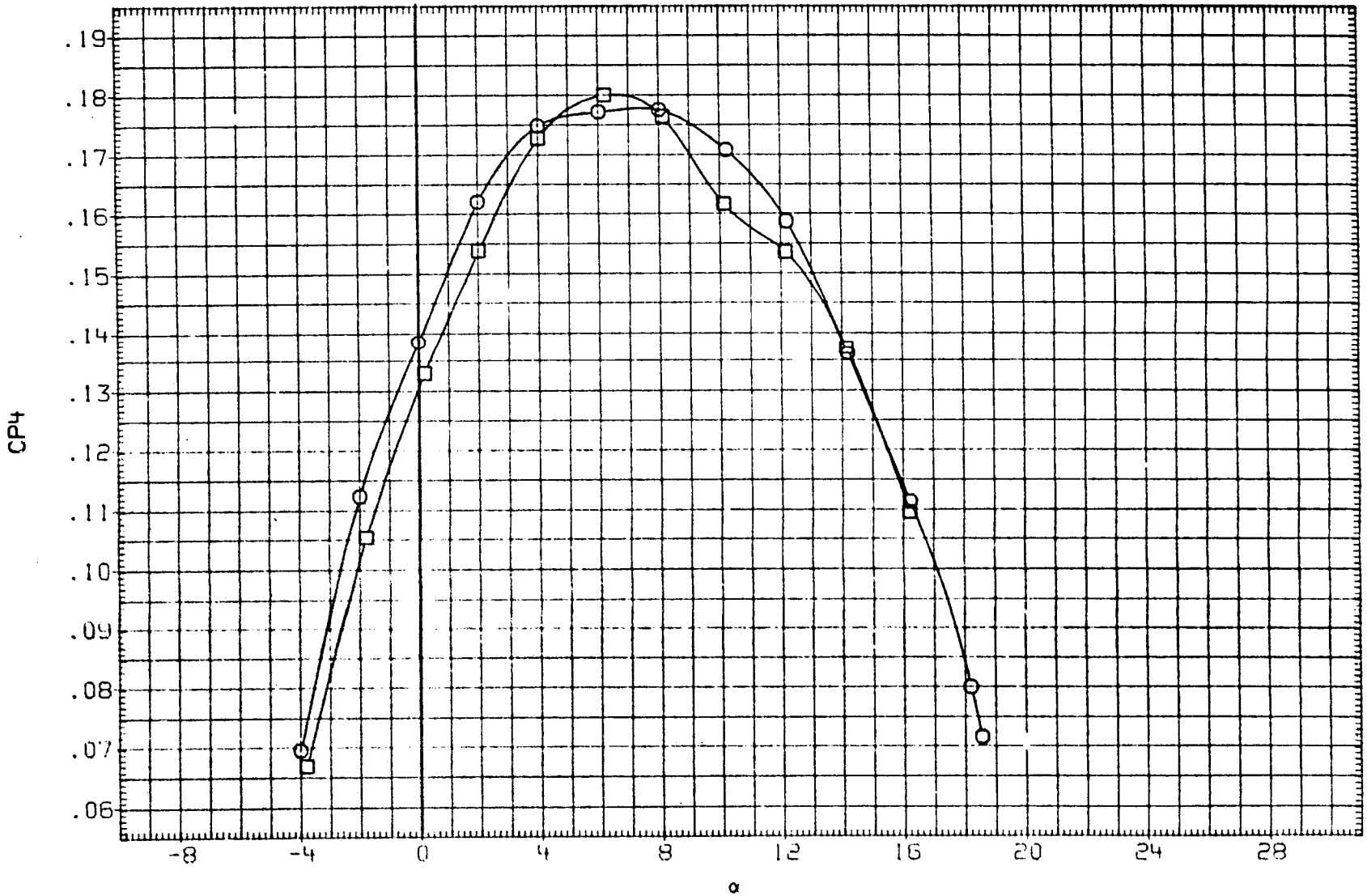


FIG. 83 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS
NOSE FLUSH PORT TAPS 1, 3, 4, 5 AND 6

(B)MACH = .25 DATE 27 JUN 78 PAGE 233

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
DVR001	○	0A232 AEDC 16T TF431 LF0.2P/S RF0.2A FTP	.000	.000
DVR017	□	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
DVR018	◇	DATA NOT AVAILABLE	.000	.000
DVR019	△	DATA NOT AVAILABLE	.000	.000
DVR020	▷	DATA NOT AVAILABLE	.000	.000
DVR014	D	DATA NOT AVAILABLE	.000	.000

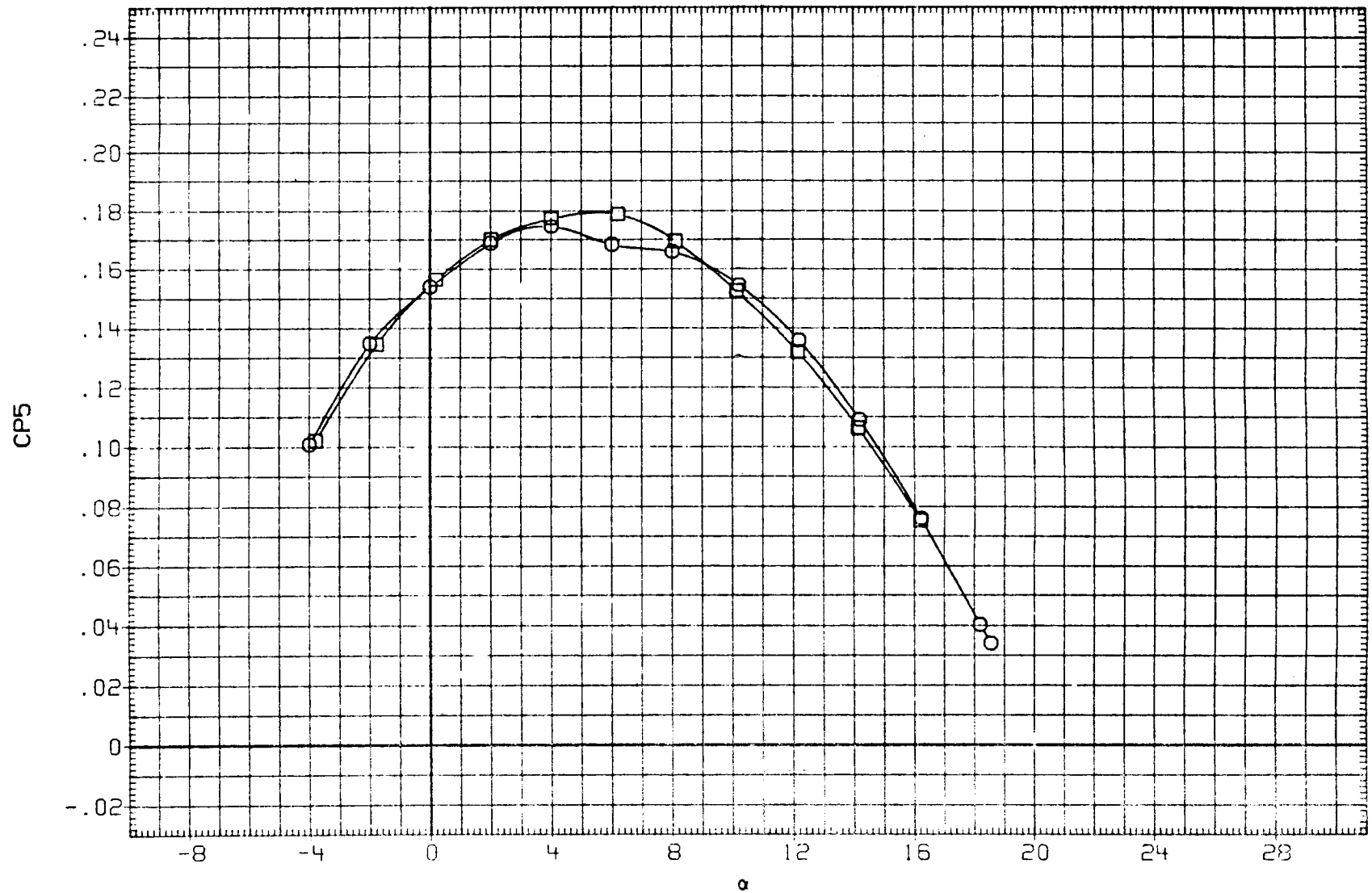


FIG. 83 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS NOSE FLUSH PORT TAPS 1, 3, 4, 5 AND 6

(B) MACH = .25 DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
DVR001	○	0A232 AEDC 16T TF431 LF0.2P/S RF0.2A FTP	.000	.000
DVR017	□	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
DVR018	◇	DATA NOT AVAILABLE	.000	.000
DVR019	△	DATA NOT AVAILABLE	.000	.000
DVR020	▷	DATA NOT AVAILABLE	.000	.000
DVR014	D	DATA NOT AVAILABLE	.000	.000

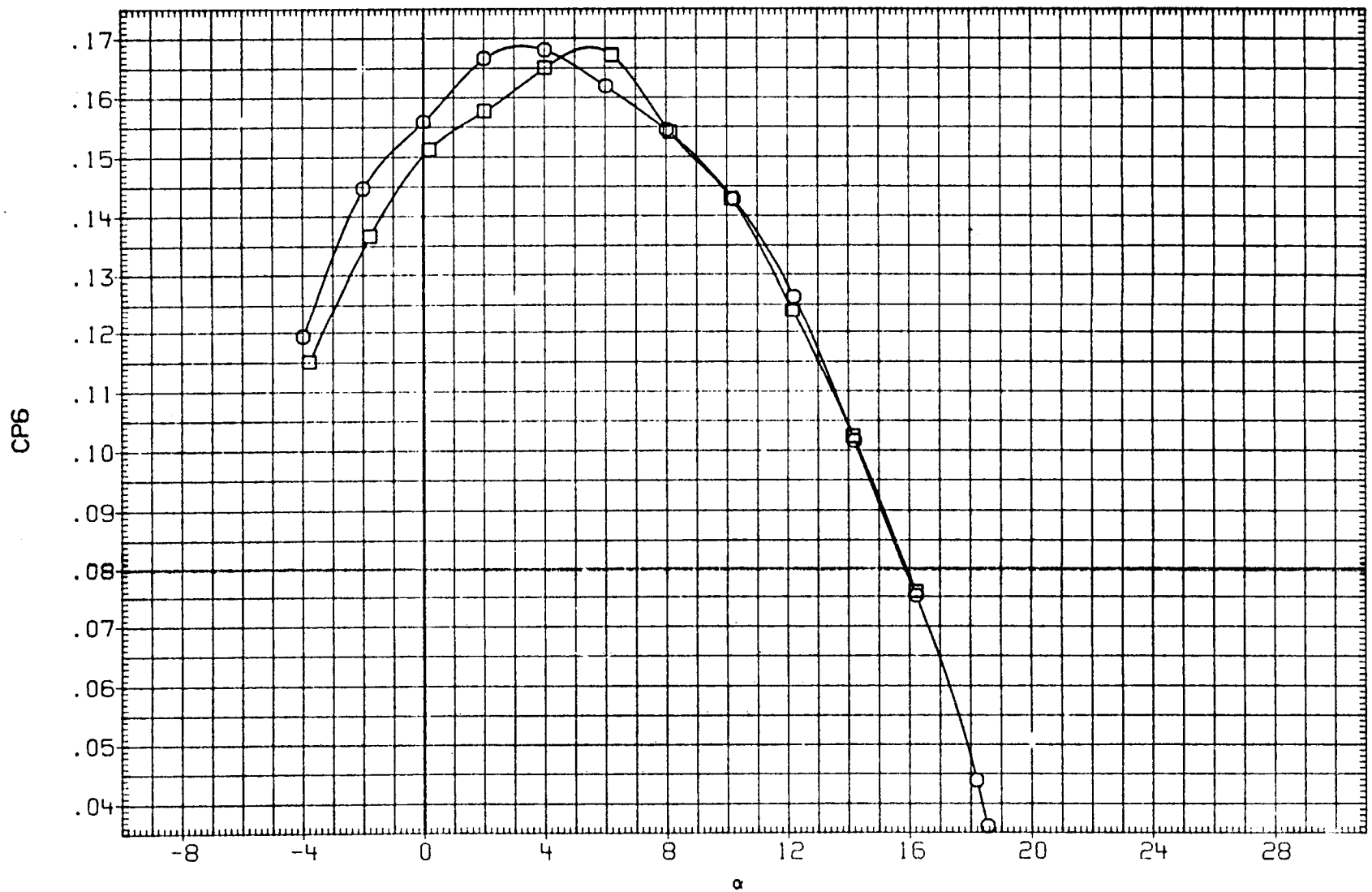


FIG. 83 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS
NOSE FLUSH PORT TAPS 1, 3, 4, 5 AND 6

(B)MACH = .25 DATE 27 JUN 78 PAGE 235

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
DVR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
DVR017	□	DATA NOT AVAILABLE	.000	.000
DVR018	◇	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
DVR019	△	DATA NOT AVAILABLE	.000	.000
DVR020	▷	DATA NOT AVAILABLE	.000	.000
DVR014	D	0A232 AEDC 16T TF431 LA .2A RFN.1S	.000	.000

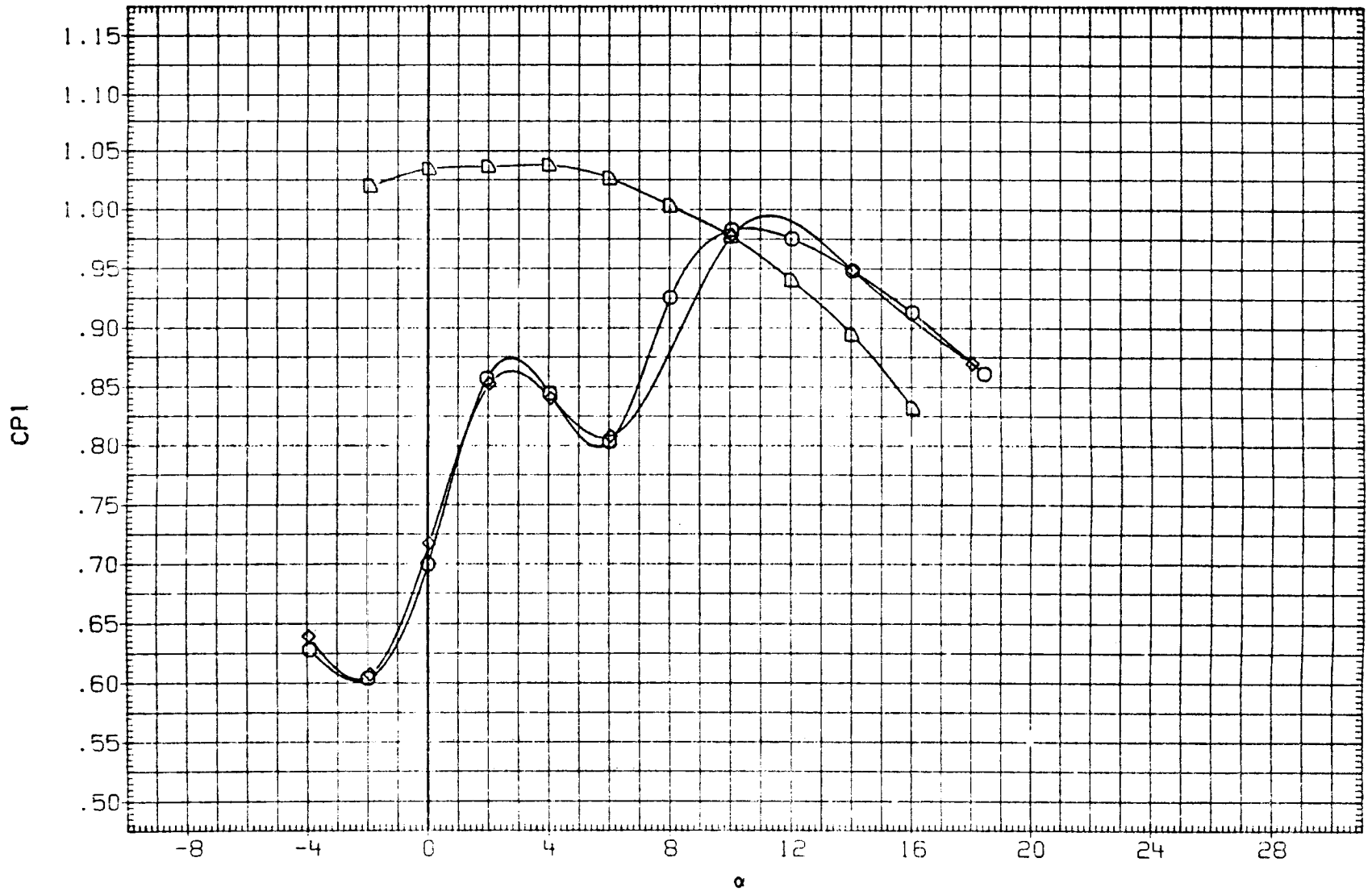


FIG. 83 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS NOSE FLUSH PORT TAPS 1, 3, 4, 5 AND 6

(C)MACH = .40 DATE 27 JUN 78 PAGE 236

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
DVR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
DVR017	□	DATA NOT AVAILABLE	.000	.000
DVR018	◇	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
DVR019	◁	DATA NOT AVAILABLE	.000	.000
DVR020	△	DATA NOT AVAILABLE	.000	.000
DVR014	D	0A232 AEDC 16T TF431 LA .2A RFN.1S	.000	.000

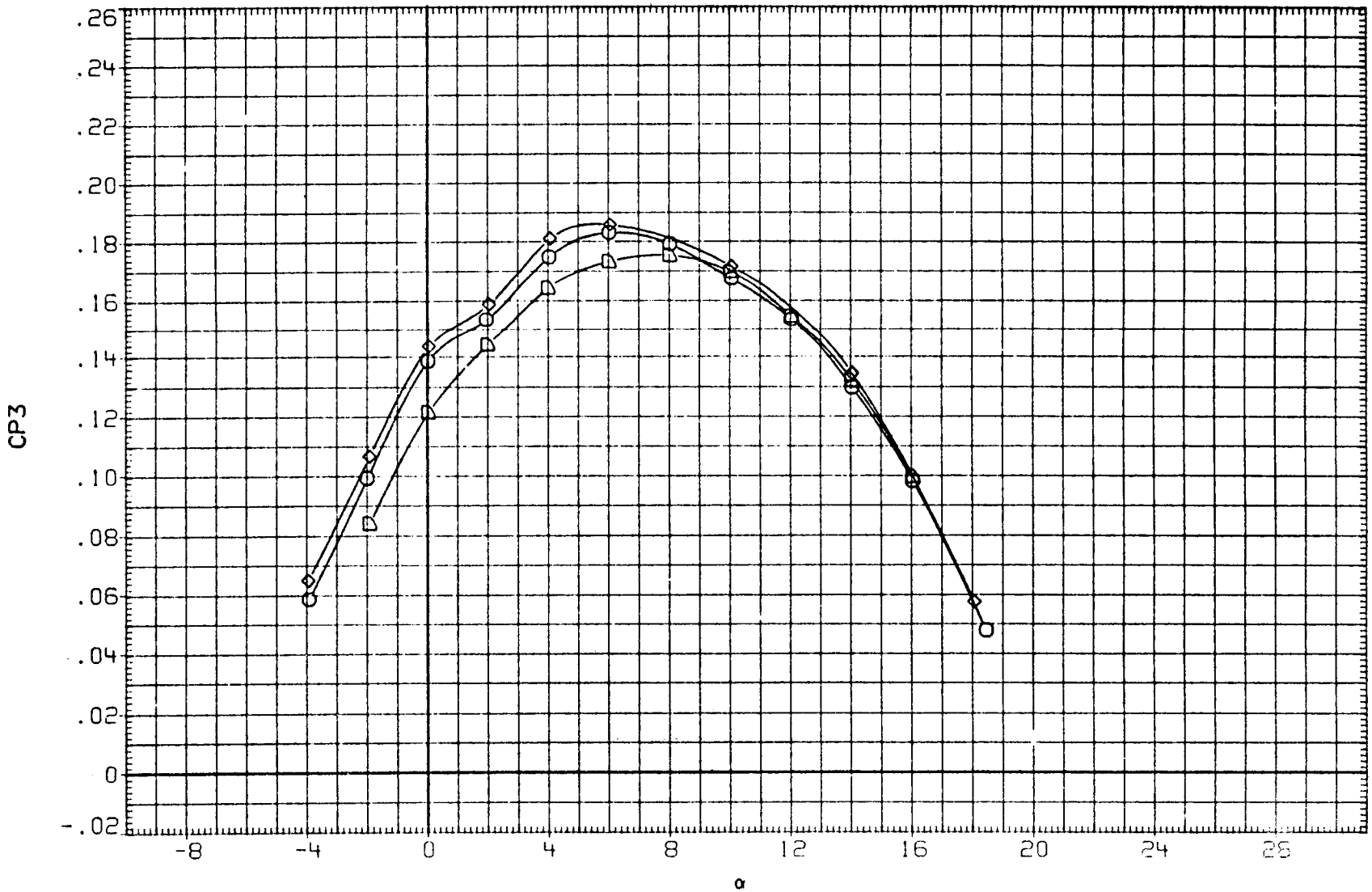


FIG. 83 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS NOSE FLUSH PORT TAPS 1, 3, 4, 5 AND 6

(C)MACH = .40 DATE 27 JUN 78 PAGE 237

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
DVR001	○	OA232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
DVR017	□	DATA NOT AVAILABLE	.000	.000
DVR018	◇	OA232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
DVR019	△	DATA NOT AVAILABLE	.000	.000
DVR020	▷	DATA NOT AVAILABLE	.000	.000
DVR014	D	OA232 AEDC 16T TF431 LA .2A RFN.1S	.000	.000

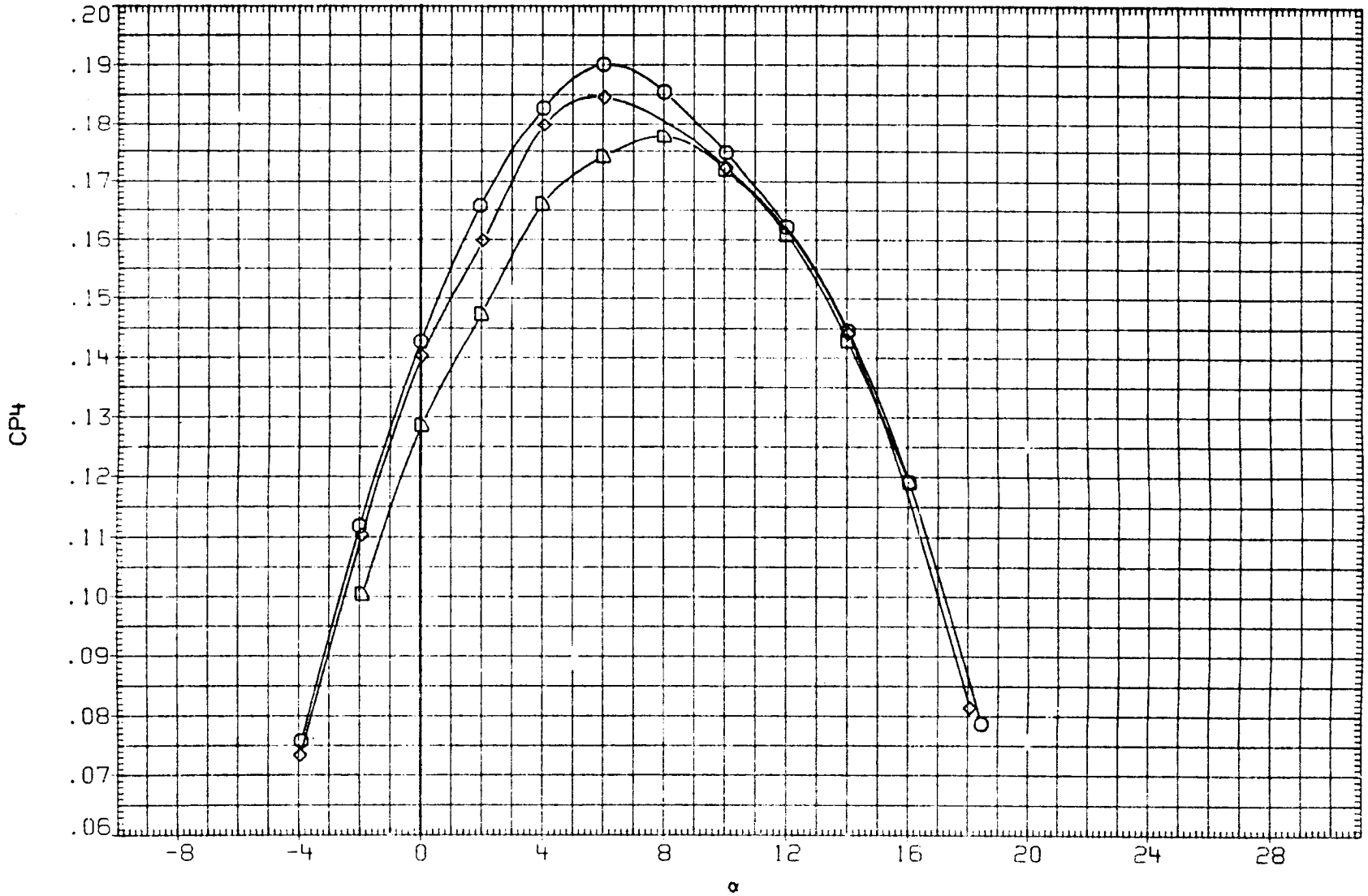


FIG. 83 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS
NOSE FLUSH PORT TAPS 1, 3, 4, 5 AND 6

(C)MACH = .40 DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
DVR001	○	0A232 AEDC 16T TF431 LF0.2P/S RF0.2A FTP	.000	.000
DVR017	□	DATA NOT AVAILABLE	.000	.000
DVR018	◇	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
DVR019	△	DATA NOT AVAILABLE	.000	.000
DVR020	▷	DATA NOT AVAILABLE	.000	.000
DVR014	D	0A232 AEDC 16T TF431 LA .2A RFN.1S	.000	.000

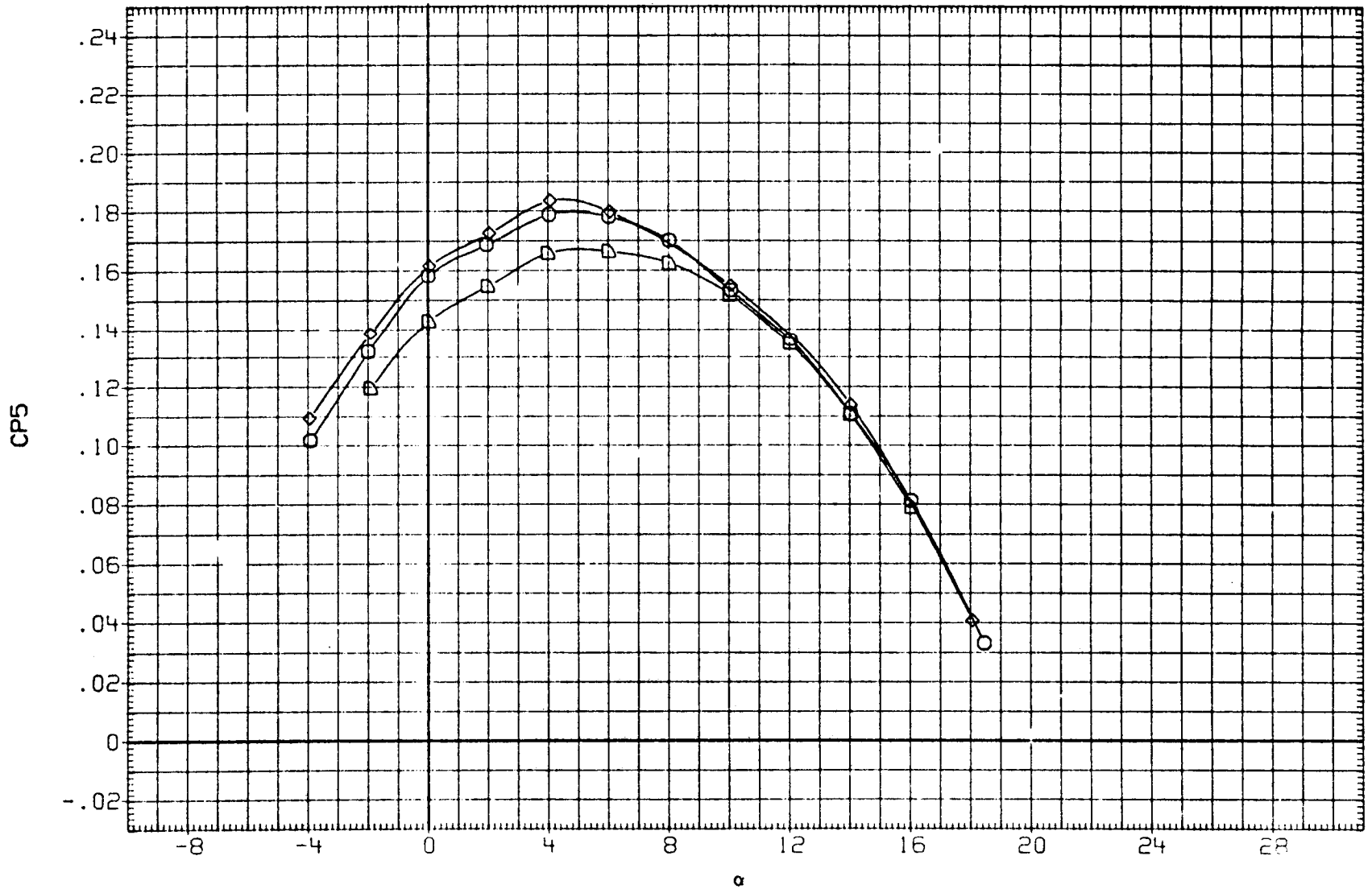


FIG. 83 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS NOSE FLUSH PORT TAPS 1, 3, 4, 5 AND 6

(C)MACH = .40 DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
DVR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
DVR017	□	DATA NOT AVAILABLE	.000	.000
DVR018	◇	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
DVR019	◁	DATA NOT AVAILABLE	.000	.000
DVR020	▷	DATA NOT AVAILABLE	.000	.000
DVR014	D	0A232 AEDC 16T TF431 LA .2A RFN.1S	.000	.000

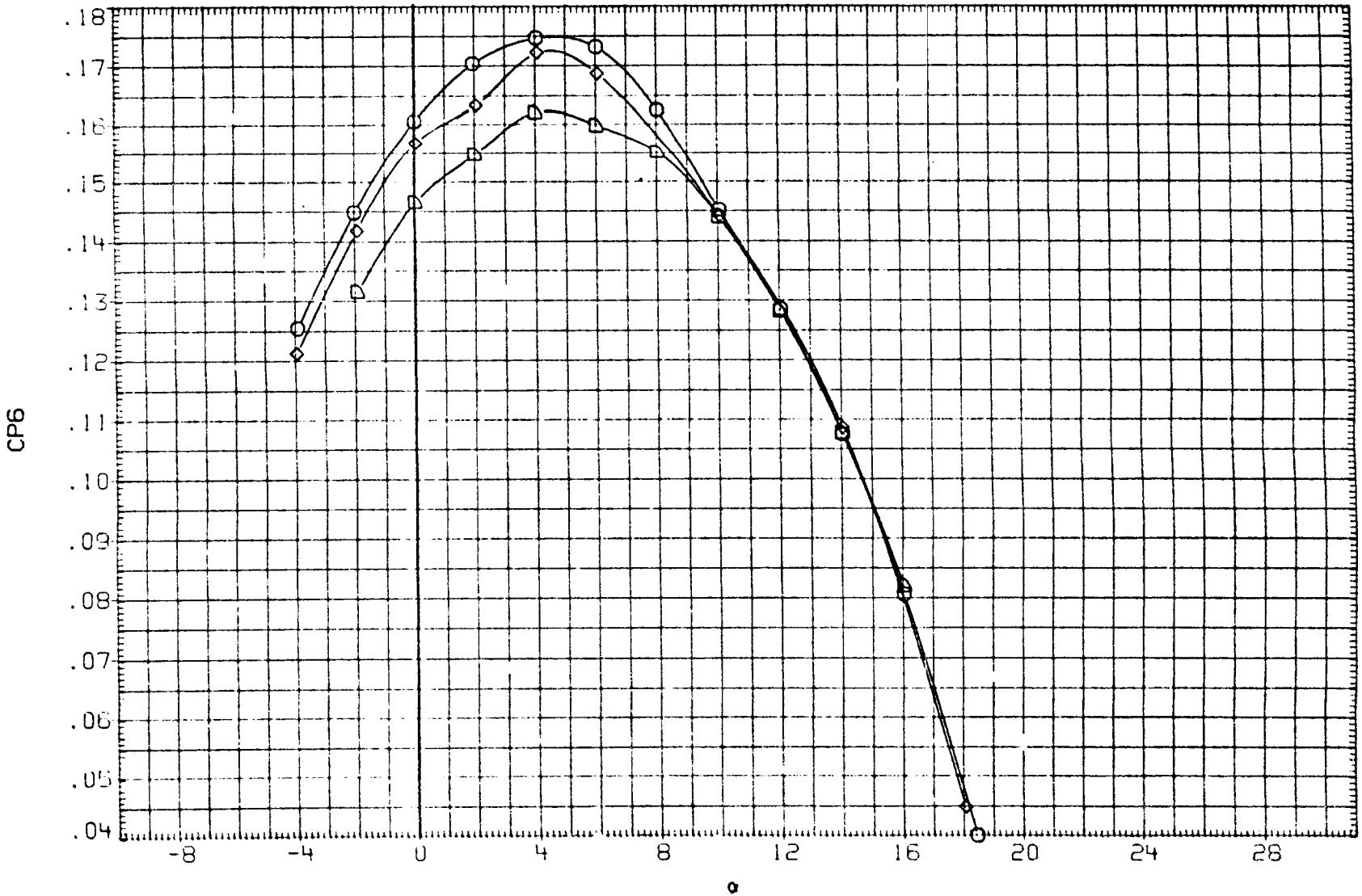


FIG. 83 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS NOSE FLUSH PORT TAPS 1, 3, 4, 5 AND 6

(C)MACH = .40 DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
DVR001	○	OA232 AEDC 16T TF431 LF0.2P/S RF0.2A FTP	.000	.000
DVR017	□	DATA NOT AVAILABLE	.000	.000
DVR018	◇	DATA NOT AVAILABLE	.000	.000
DVR019	△	OA232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
DVR020	◁	DATA NOT AVAILABLE	.000	.000
DVR014	D	OA232 AEDC 16T TF431 LA .2A RFN.1S	.000	.000

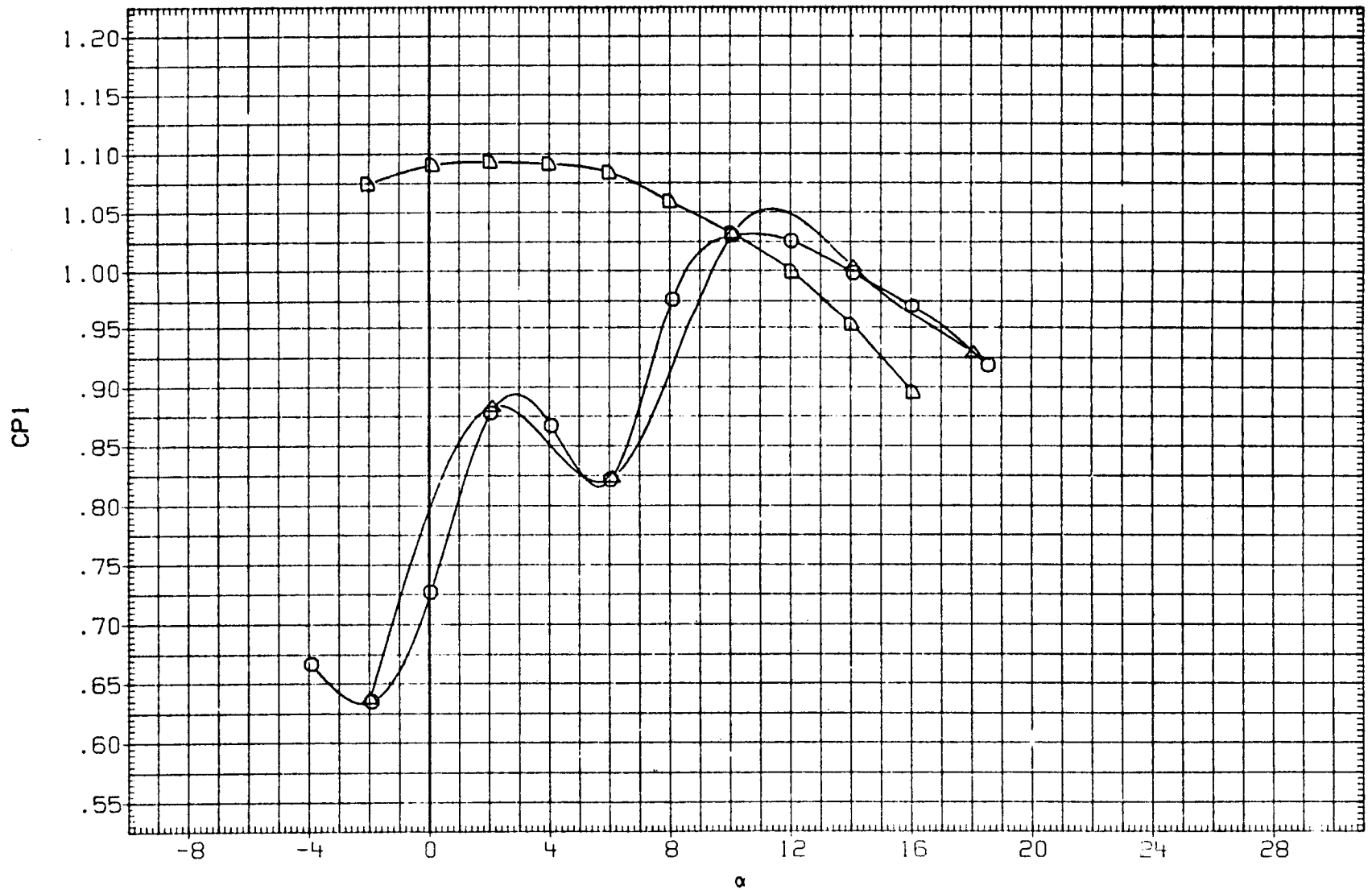


FIG. 83 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS NOSE FLUSH PORT TAPS 1, 3, 4, 5 AND 6

(D) MACH = .60 DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
DVR001	○	OA232 AEDC 16T TF431 LF0.2P/S RF0.2A FTP	.000	.000
DVR017	□	DATA NOT AVAILABLE	.000	.000
DVR018	◇	DATA NOT AVAILABLE	.000	.000
DVR019	△	OA232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
DVR020	▽	DATA NOT AVAILABLE	.000	.000
DVR014	D	OA232 AEDC 16T TF431 LA .2A RFN.1S	.000	.000

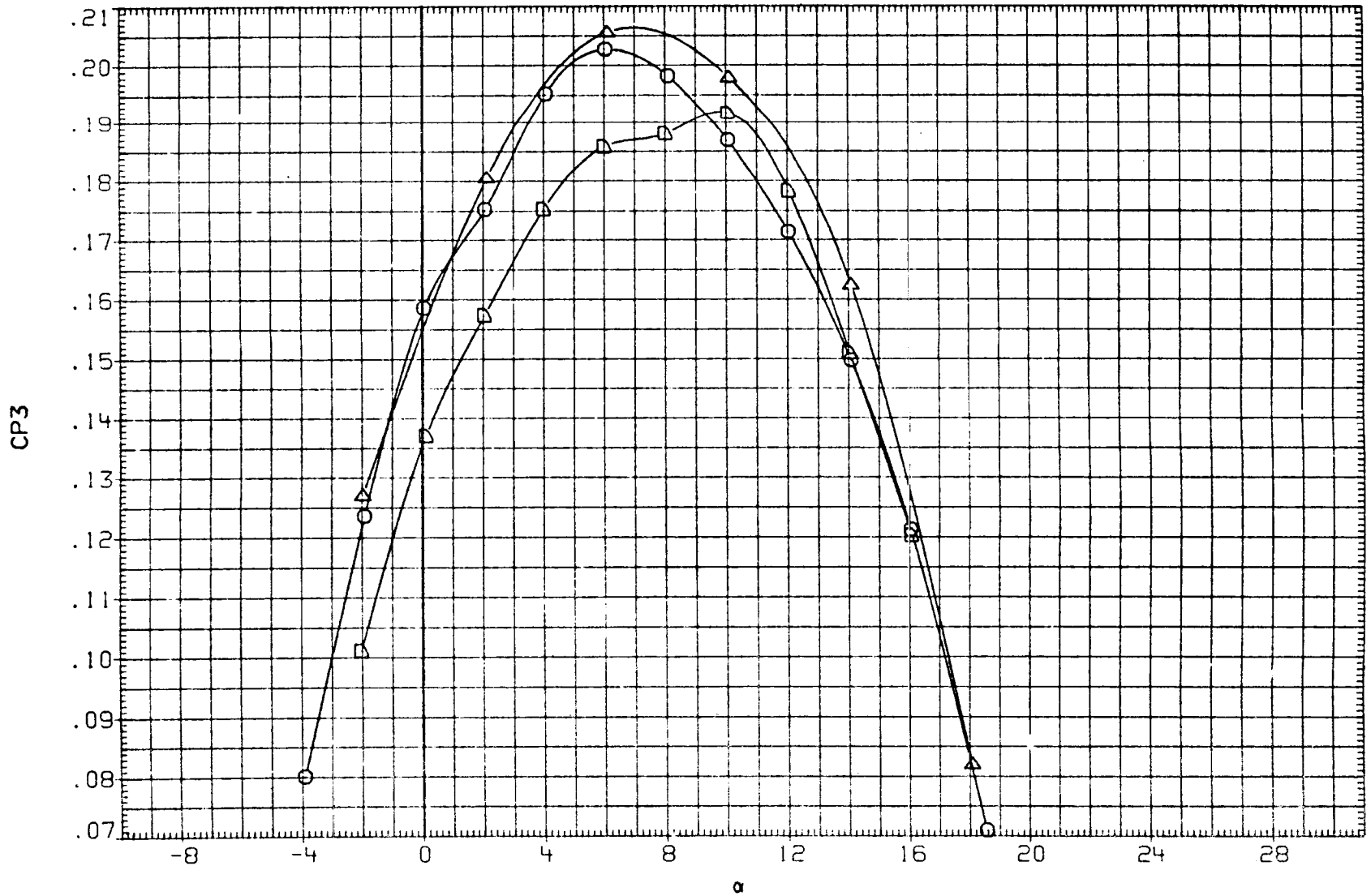


FIG. 83 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS NOSE FLUSH PORT TAPS 1, 3, 4, 5 AND 6

(D)MACH = .60 DATE 27 JUN 78 PAGE 242

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
DVR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
DVR017	□	DATA NOT AVAILABLE	.000	.000
DVR018	◇	DATA NOT AVAILABLE	.000	.000
DVR019	△	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
DVR020	⊿	DATA NOT AVAILABLE	.000	.000
DVR014	D	0A232 AEDC 16T TF431 LA .2A RFN.1S	.000	.000

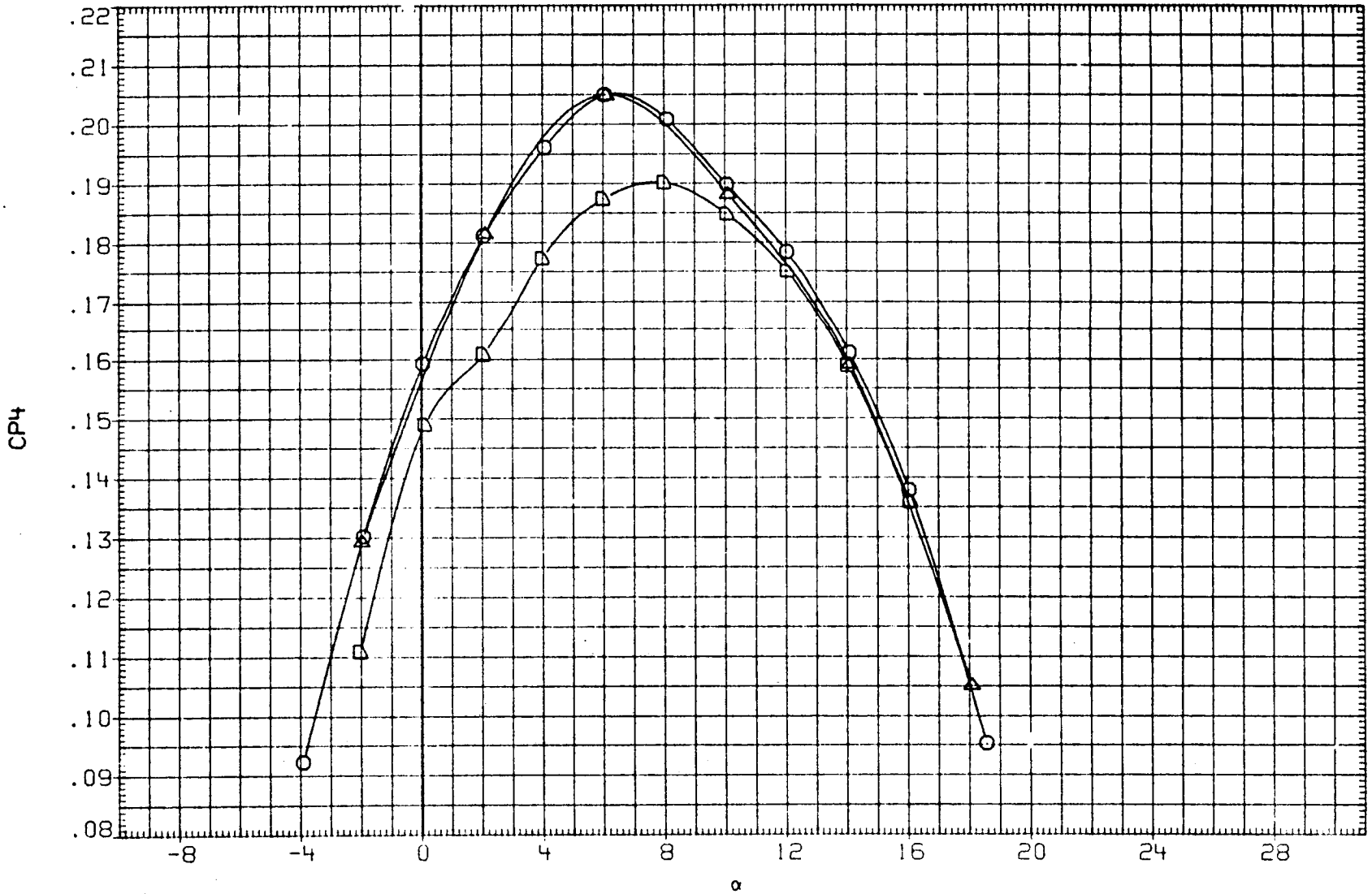


FIG. 83 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS NOSE FLUSH PORT TAPS 1, 3, 4, 5 AND 6

(D)MACH = .60 DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
DVR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
DVR017	□	DATA NOT AVAILABLE	.000	.000
DVR018	◇	DATA NOT AVAILABLE	.000	.000
DVR019	△	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
DVR020	▽	DATA NOT AVAILABLE	.000	.000
DVR014	D	0A232 AEDC 16T TF431 LA .2A RFN.1S	.000	.000

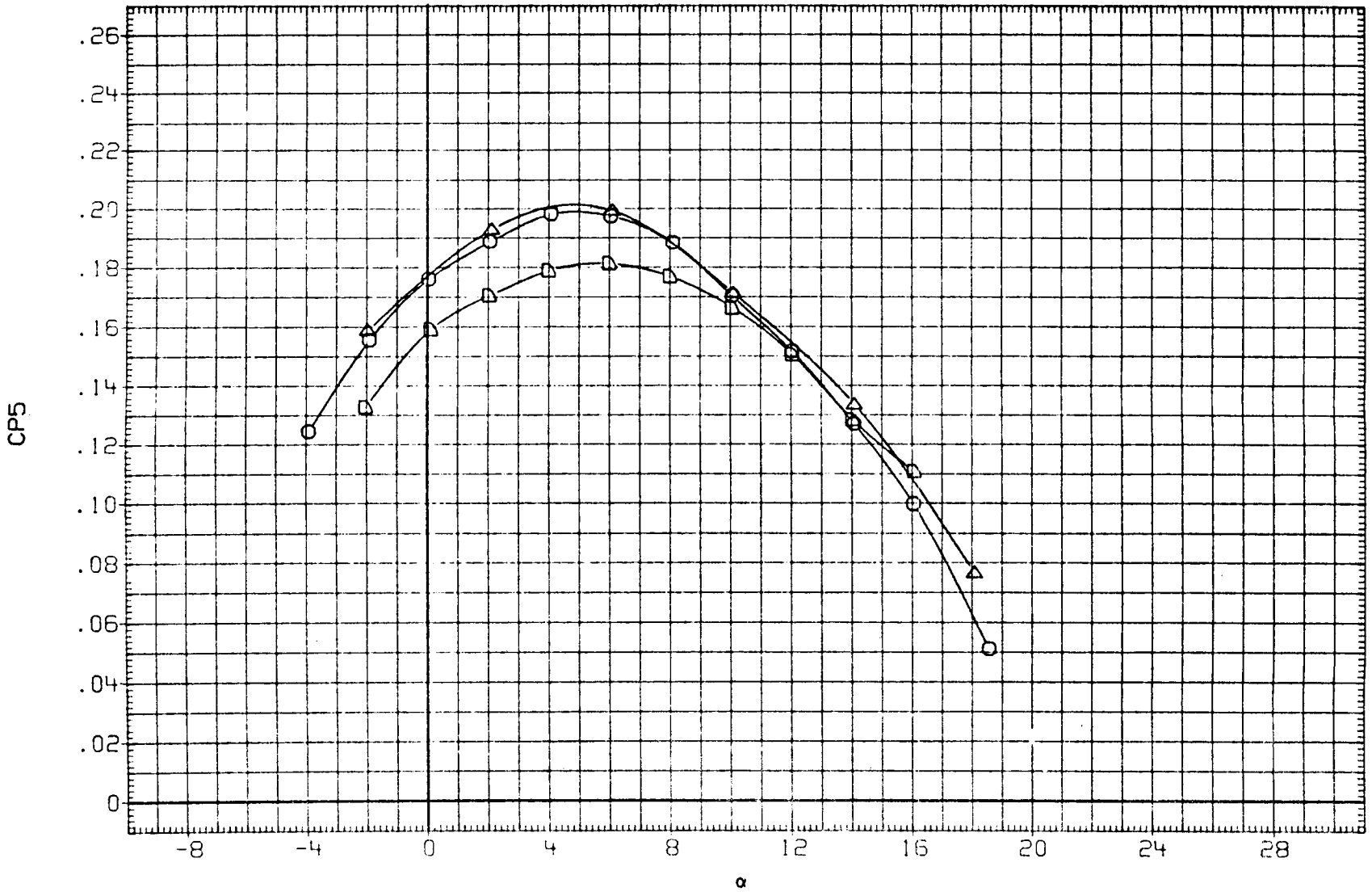


FIG. 83 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS
NOSE FLUSH PORT TAPS 1, 3, 4, 5 AND 6

(D)MACH = .60 DATE 27 JUN 78 PAGE 244

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
DVR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
DVR017	□	DATA NOT AVAILABLE	.000	.000
DVR018	◇	DATA NOT AVAILABLE	.000	.000
DVR019	△	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
DVR020	◁	DATA NOT AVAILABLE	.000	.000
DVR014	▱	0A232 AEDC 16T TF431 LA .2A RFN.1S	.000	.000

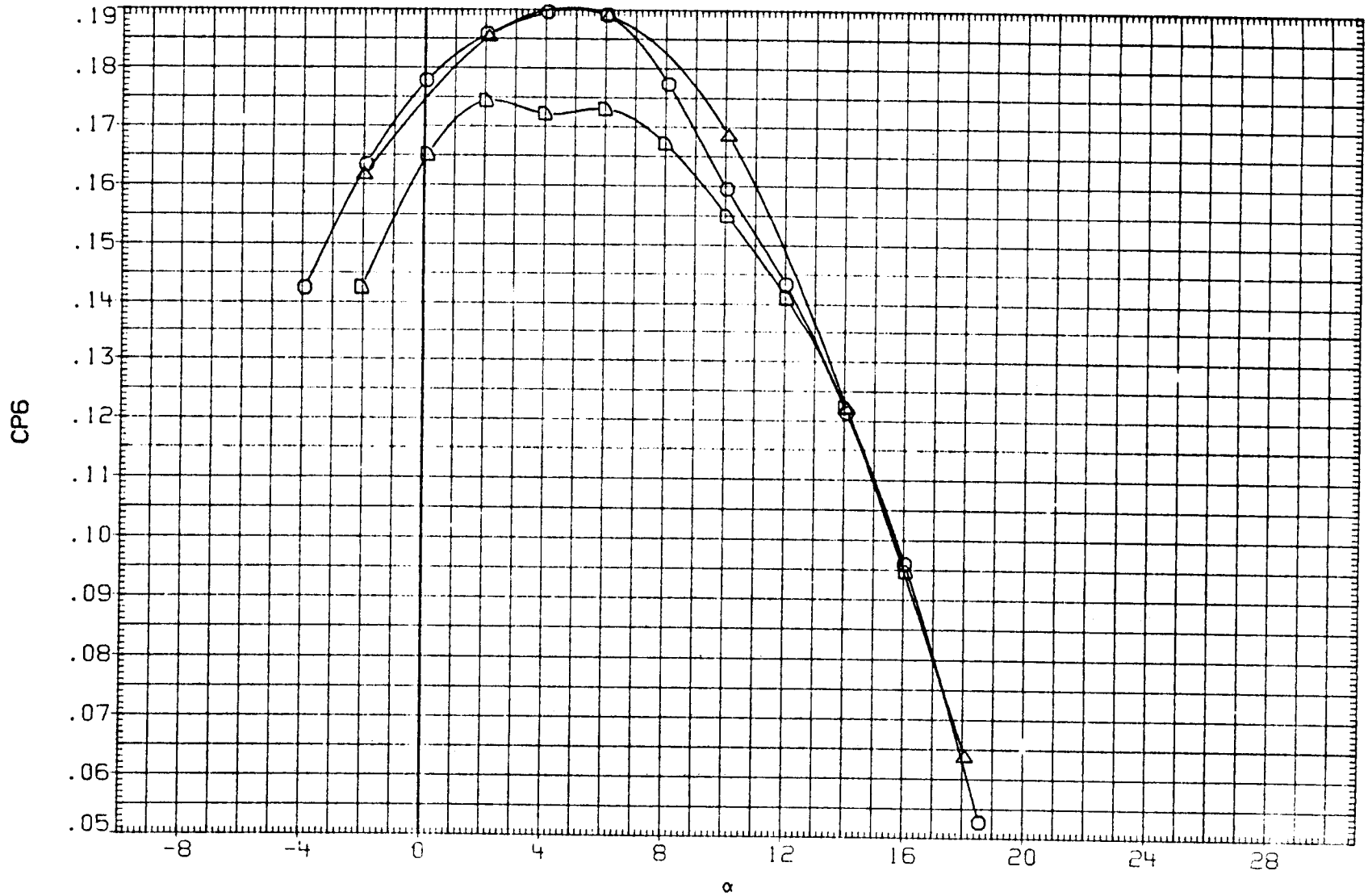


FIG. 83 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS
NOSE FLUSH PORT TAPS 1, 3, 4, 5 AND 6

(D)MACH = .60 DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
DVR001	○	0A232 AEDC 16T TF431 LF0.2P/S RF0.2A FTP	.000	.000
DVR017	□	DATA NOT AVAILABLE	.000	.000
DVR018	◇	DATA NOT AVAILABLE	.000	.000
DVR019	△	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
DVR020	⊿	DATA NOT AVAILABLE	.000	.000
DVR014	▱	0A232 AEDC 16T TF431 LA .2A RFN.1S	.000	.000

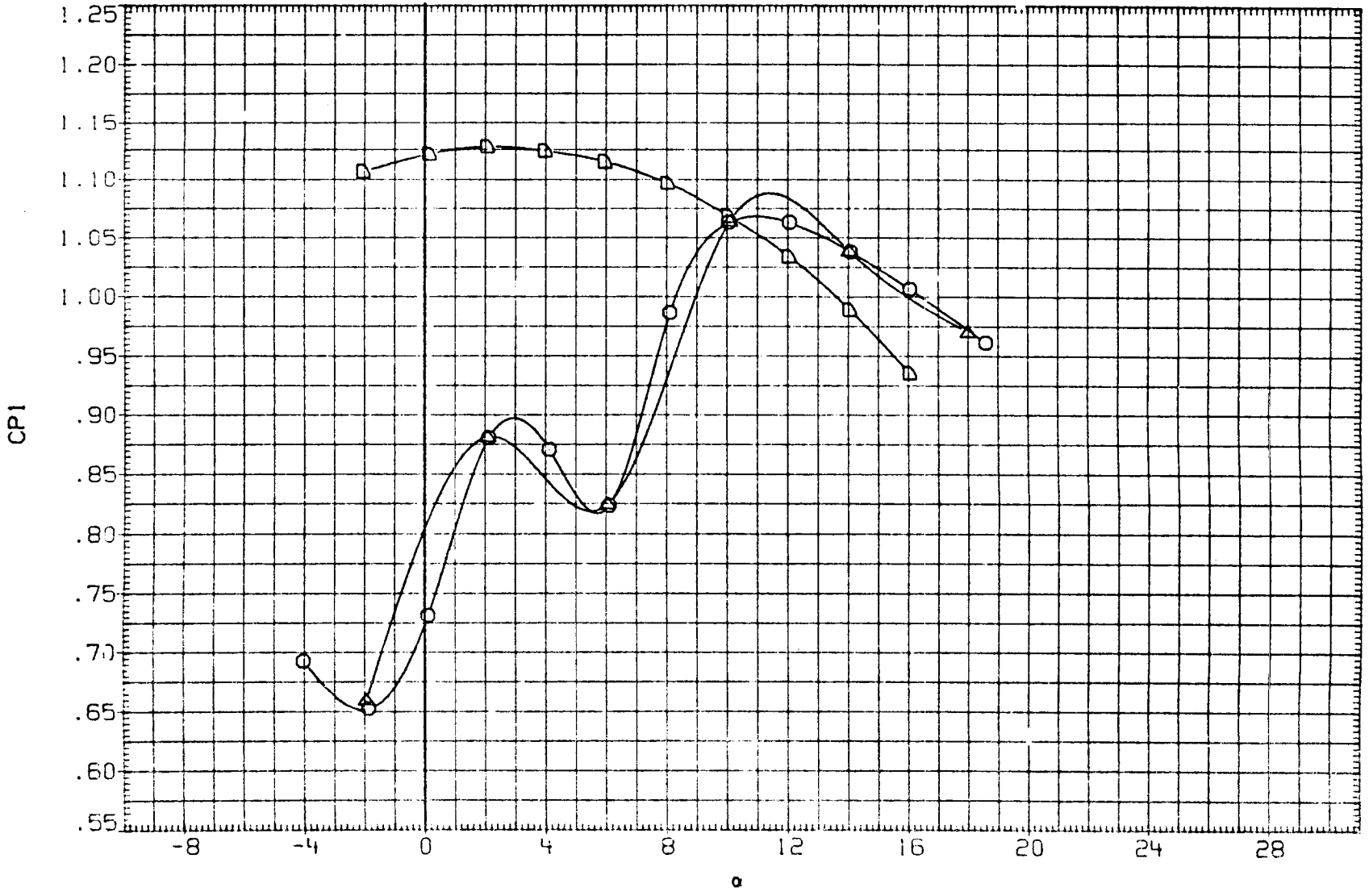


FIG. 83 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS
NOSE FLUSH PORT TAPS 1, 3, 4, 5 AND 6

(E)MACH = .70 DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
DVR001	○	0A232 AEDC 16T TF431 LF0.2P/S RF0.2A FTP	.000	.000
DVR017	□	DATA NOT AVAILABLE	.000	.000
DVR018	◇	DATA NOT AVAILABLE	.000	.000
DVR019	△	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
DVR020	▷	DATA NOT AVAILABLE	.000	.000
DVR014	D	0A232 AEDC 16T TF431 LA .2A RFN.1S	.000	.000

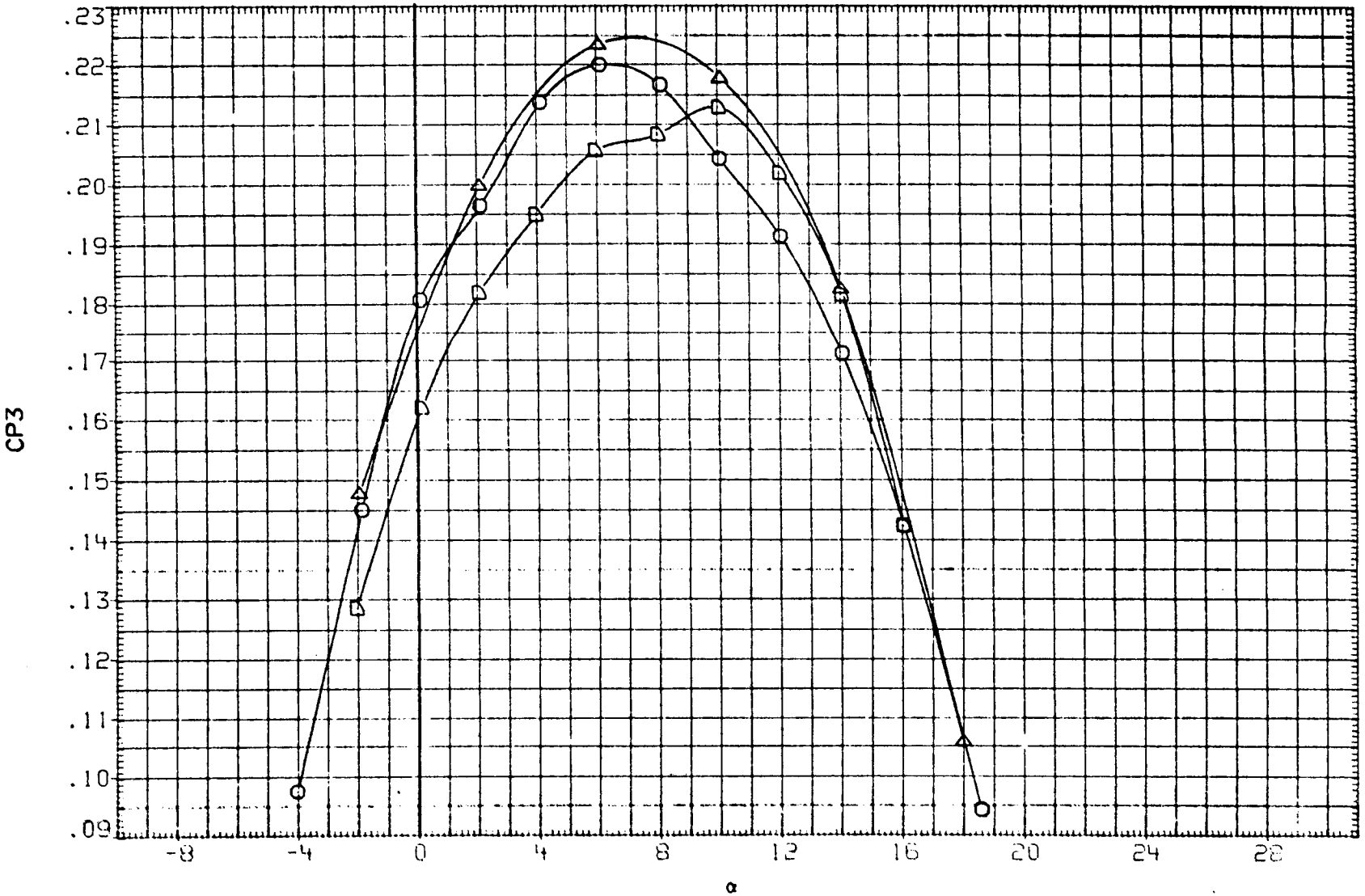


FIG. 83 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS NOSE FLUSH PORT TAPS 1, 3, 4, 5 AND 6

(E)MACH = .70 DATE 27 JUN 78 PAGE 247

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
DVR001	○	OA232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
DVR017	□	DATA NOT AVAILABLE	.000	.000
DVR018	◇	DATA NOT AVAILABLE	.000	.000
DVR019	△	OA232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
DVR020	▷	DATA NOT AVAILABLE	.000	.000
DVR014	▷	OA232 AEDC 16T TF431 LA .2A RFN.1S	.000	.000

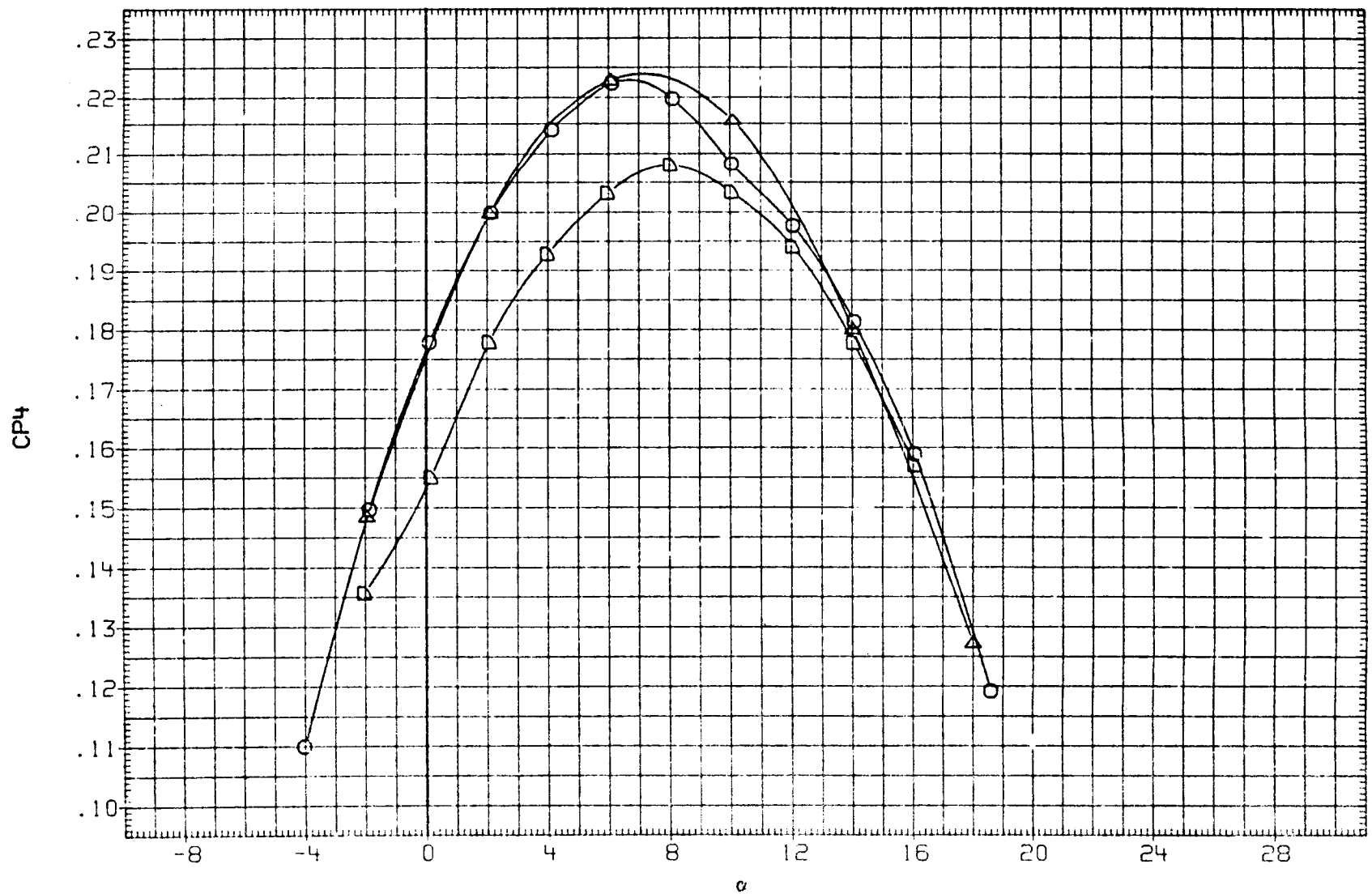


FIG. 83 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS NOSE FLUSH PORT TAPS 1, 3, 4, 5 AND 6

(E)MACH = .70 DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
DVR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
DVR017	□	DATA NOT AVAILABLE	.000	.000
DVR018	◇	DATA NOT AVAILABLE	.000	.000
DVR019	△	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
DVR020	▽	DATA NOT AVAILABLE	.000	.000
DVR014	D	0A232 AEDC 16T TF431 LA .2A RFN.1S	.000	.000

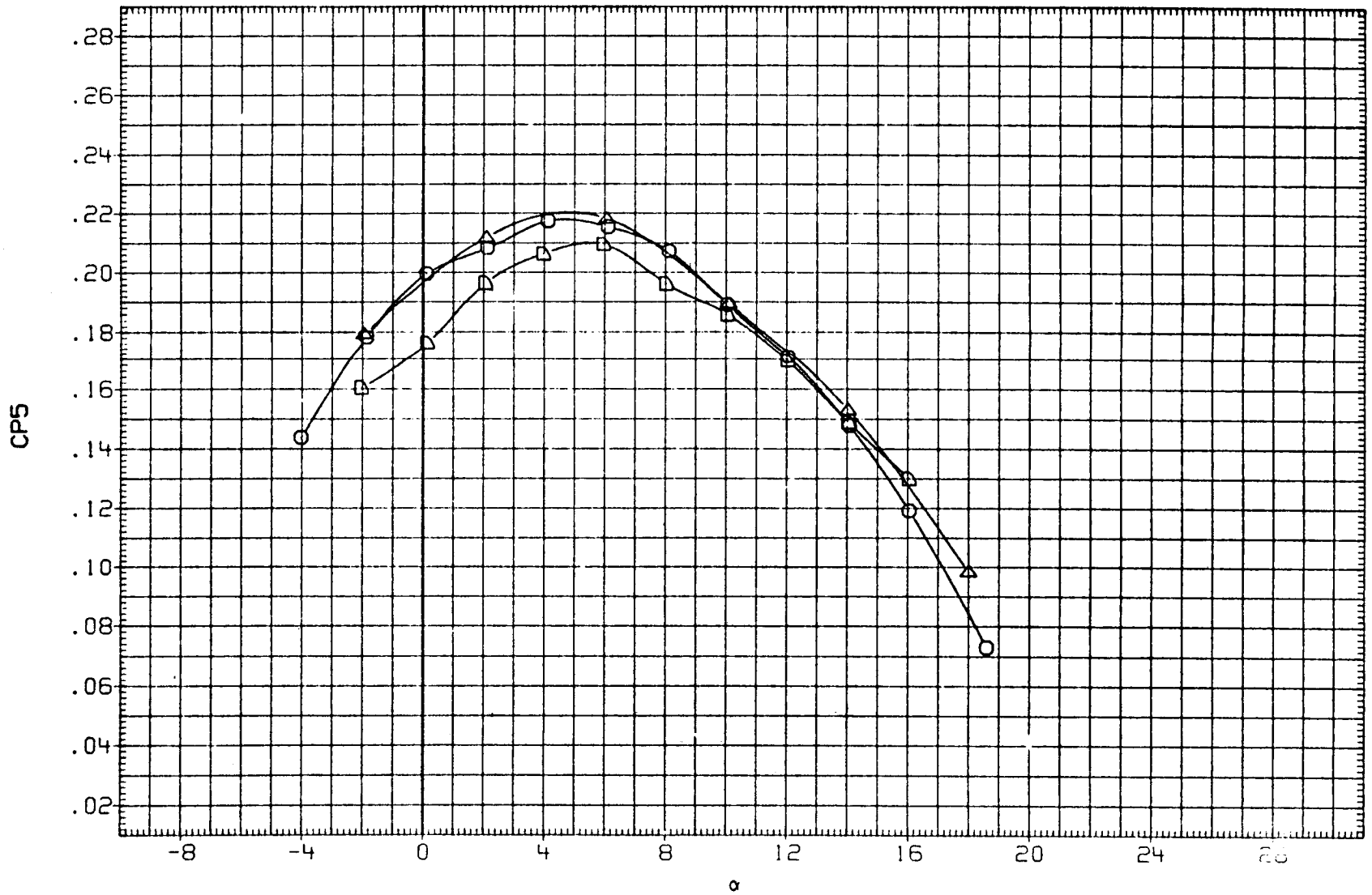


FIG. 83 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS NOSE FLUSH PORT TAPS 1, 3, 4, 5 AND 6

(E)MACH = .70 DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
DVR001	○	OA232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
DVR017	□	DATA NOT AVAILABLE	.000	.000
DVR018	◇	DATA NOT AVAILABLE	.000	.000
DVR019	△	OA232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
DVR020	▽	DATA NOT AVAILABLE	.000	.000
DVR014	▷	OA232 AEDC 16T TF431 LA .2A RFN.1S	.000	.000

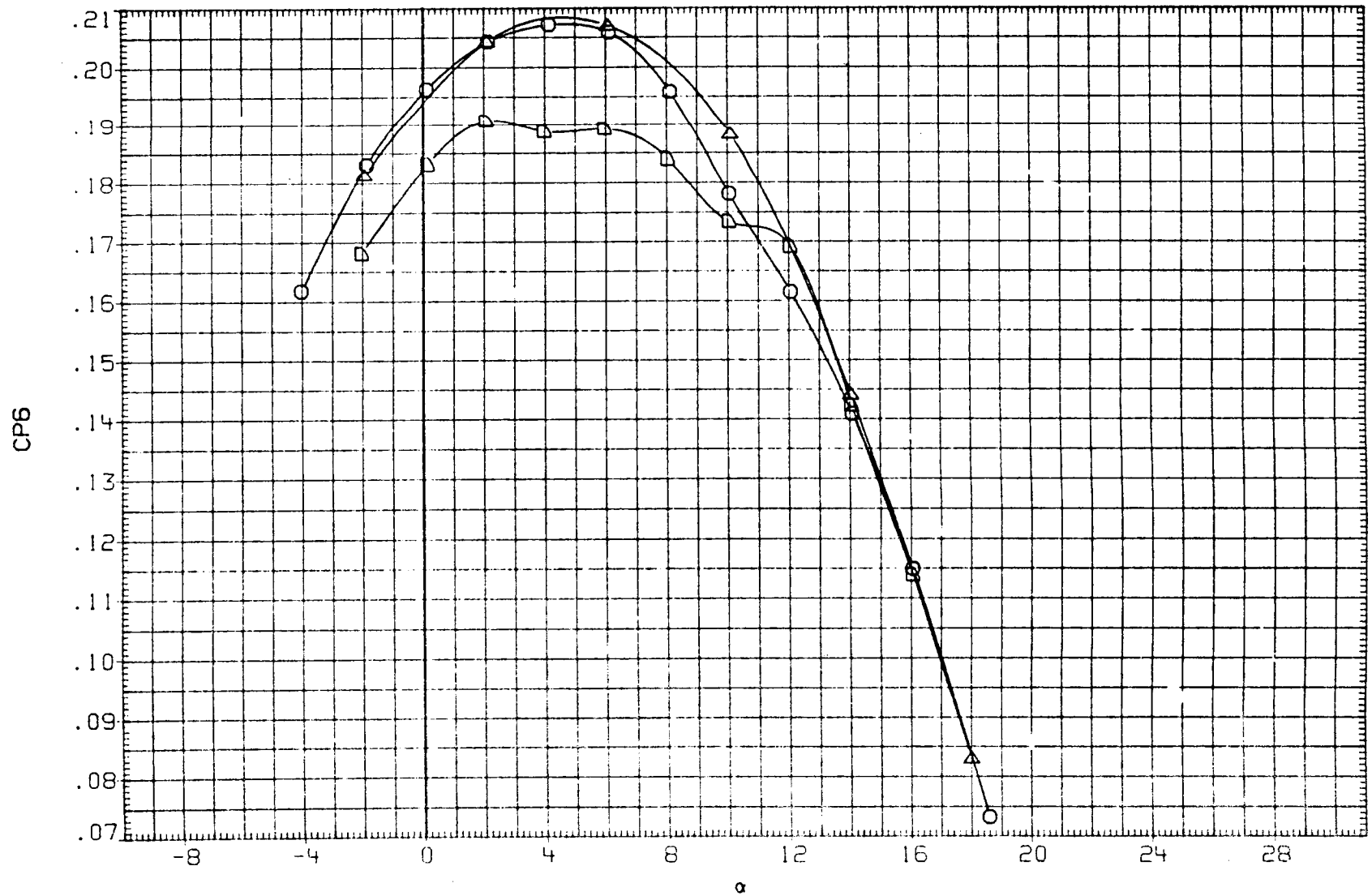


FIG. 83 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS
NOSE FLUSH PORT TAPS 1, 3, 4, 5 AND 6

(E)MACH = .70 DATE 27 JUN 78 PAGE 250

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
DVR001	○	OA232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
DVR017	□	DATA NOT AVAILABLE	.000	.000
DVR018	◇	DATA NOT AVAILABLE	.000	.000
DVR019	△	DATA NOT AVAILABLE	.000	.000
DVR020	▽	OA232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
DVR014	D	OA232 AEDC 16T TF431 LA .2A RFN.1S	.000	.000

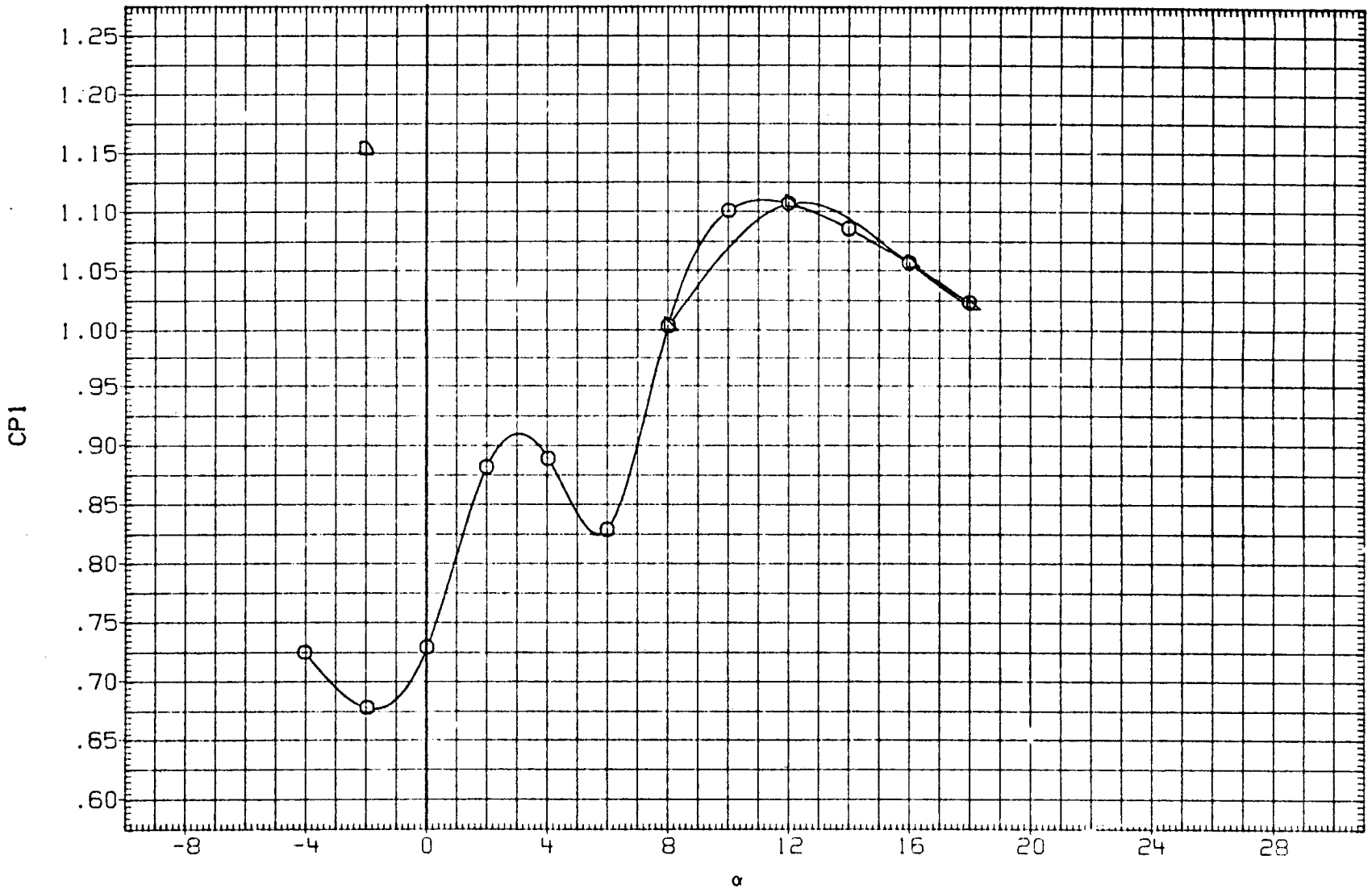


FIG. 83 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS NOSE FLUSH PORT TAPS 1, 3, 4, 5 AND 6

(F)MACH = .80 DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
OVR001	○	OA232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
OVR017	□	DATA NOT AVAILABLE	.000	.000
OVR018	◇	DATA NOT AVAILABLE	.000	.000
OVR019	△	DATA NOT AVAILABLE	.000	.000
OVR020	◸	OA232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
OVR014	D	OA232 AEDC 16T TF431 LA .2A RFN.1S	.000	.000

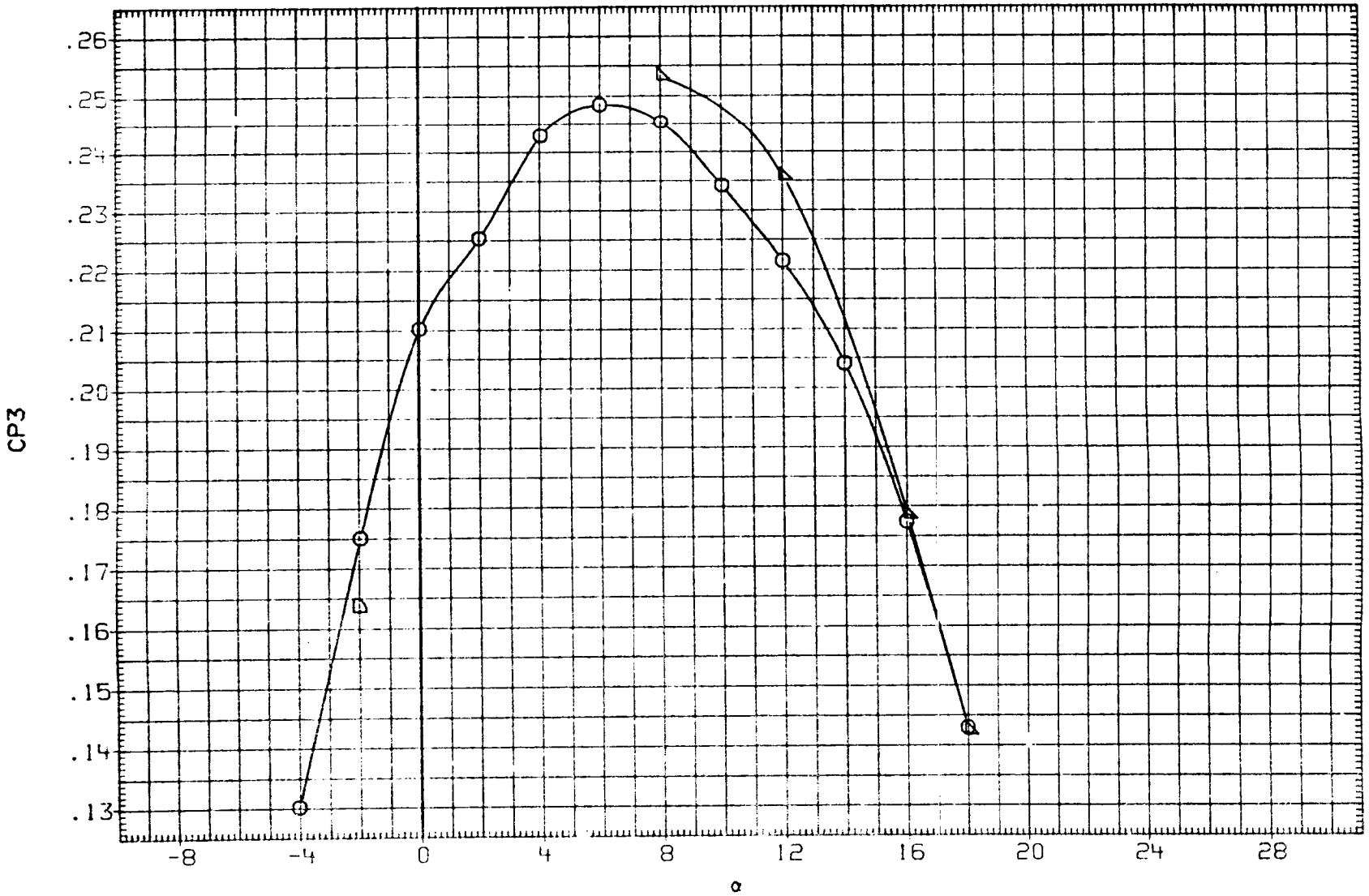


FIG. 83 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS
NOSE FLUSH PORT TAPS 1, 3, 4, 5 AND 6

(F)MACH = .80 DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
DVR001	○	OA232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
DVR017	□	DATA NOT AVAILABLE	.000	.000
DVR018	◇	DATA NOT AVAILABLE	.000	.000
DVR019	△	DATA NOT AVAILABLE	.000	.000
DVR020	▷	OA232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
DVR014	▷	OA232 AEDC 16T TF431 LA .2A RFN.1S	.000	.000

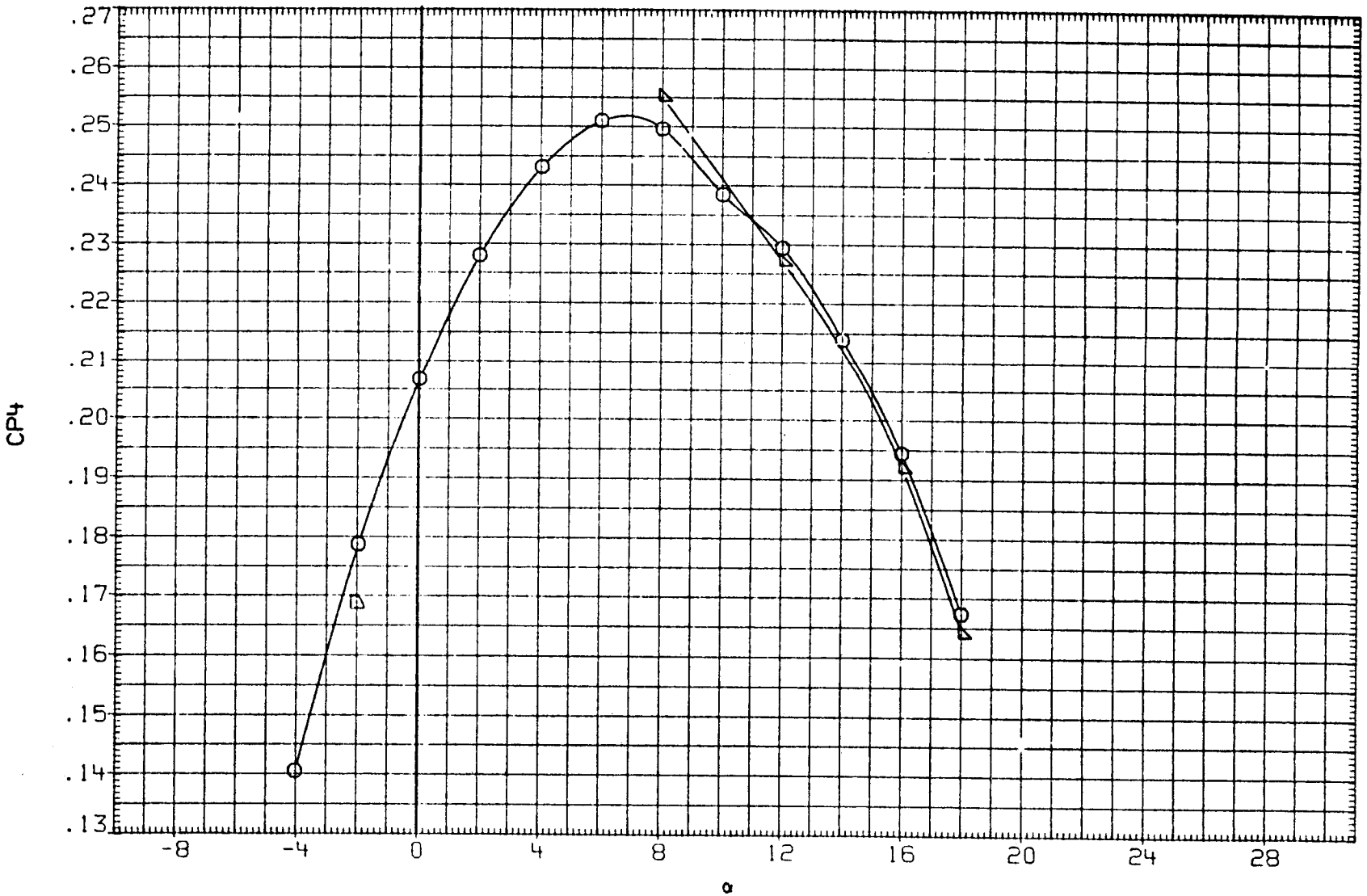


FIG. 83 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS NOSE FLUSH PORT TAPS 1, 3, 4, 5 AND 6

(F)MACH = .80

DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
DVR001	○	CA232 AEDC 16T TF431 LFD.2P/S RFO.2A FTP	.000	.000
DVR017	□	DATA NOT AVAILABLE	.000	.000
DVR018	◇	DATA NOT AVAILABLE	.000	.000
DVR019	△	DATA NOT AVAILABLE	.000	.000
DVR020	⧄	OA232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
DVR014	▷	OA232 AEDC 16T TF431 LA .2A RFN.1S	.000	.000

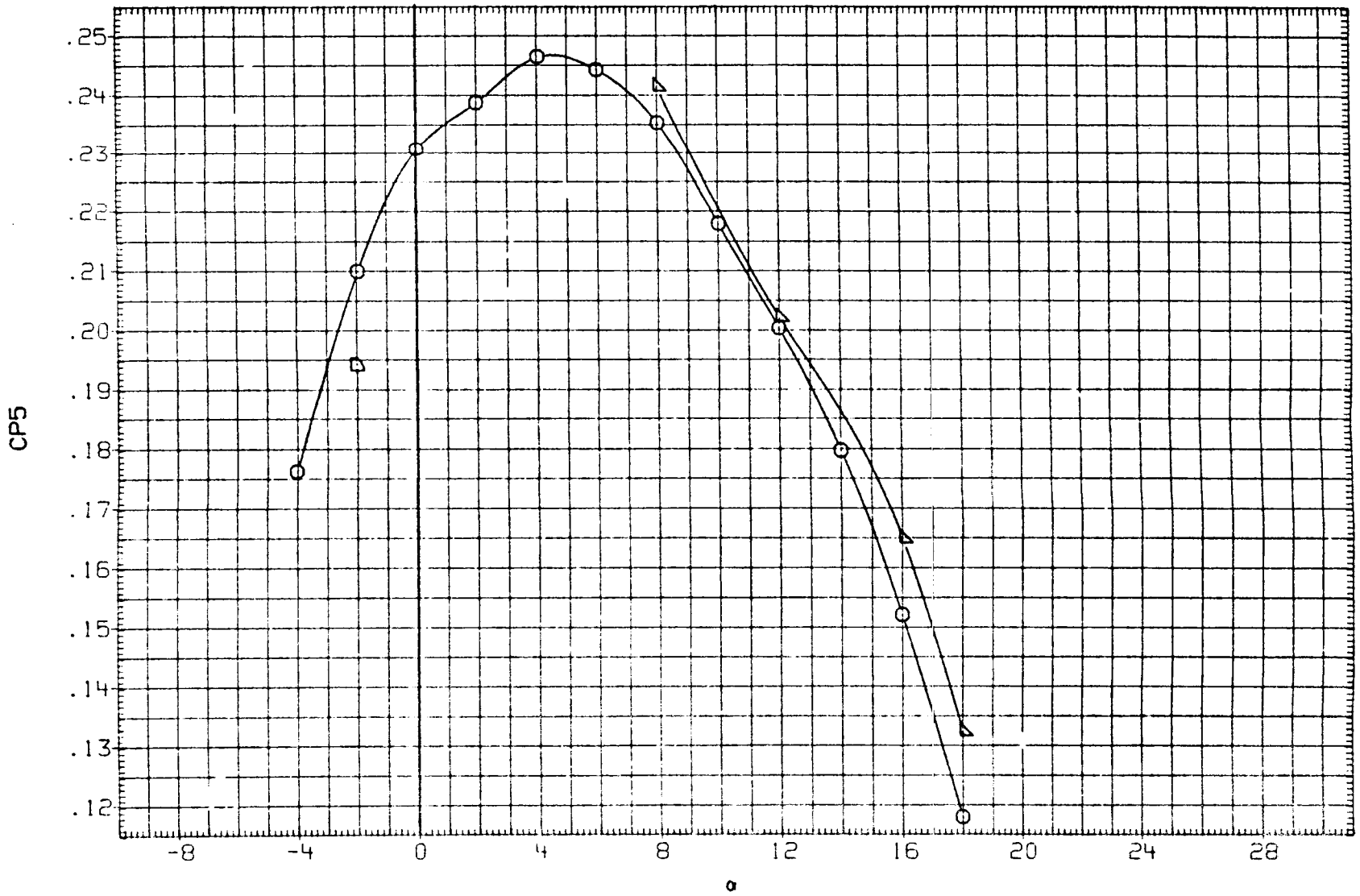


FIG. 83 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS NOSE FLUSH PORT TAPS 1, 3, 4, 5 AND 6

(F)MACH = .80 DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
DVR001	○	OA232 AEDC 16T TF431 LF0.2P/S RF0.2A FTP	.000	.000
DVR017	□	DATA NOT AVAILABLE	.000	.000
DVR018	◇	DATA NOT AVAILABLE	.000	.000
DVR019	△	DATA NOT AVAILABLE	.000	.000
DVR020	▷	OA232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
DVR014	D	OA232 AEDC 16T TF431 LA .2A RFN.1S	.000	.000

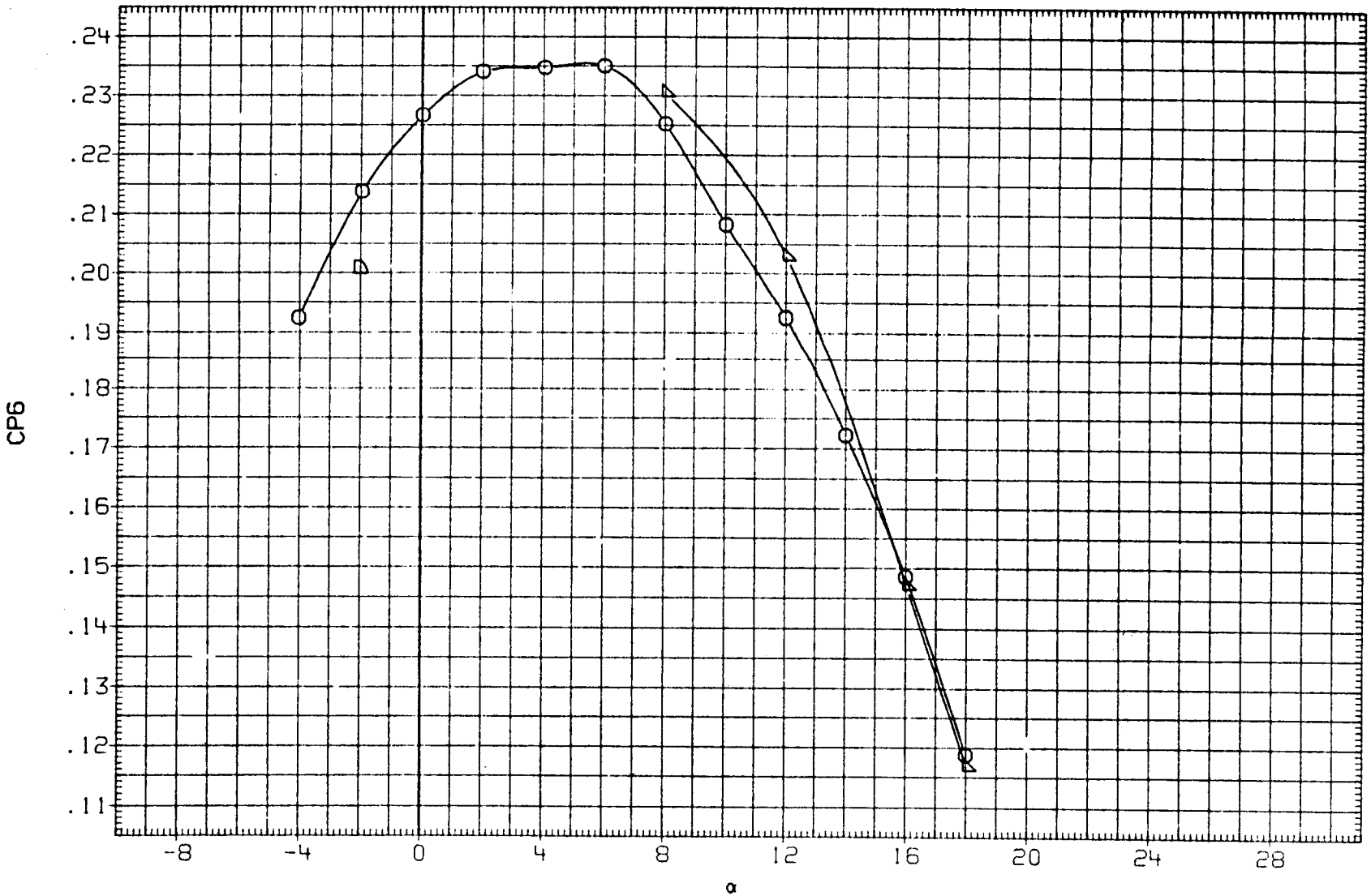


FIG. 83 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS NOSE FLUSH PORT TAPS 1, 3, 4, 5 AND 6

(F)MACH = .80 DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
EVR001	○	OA232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
EVR014	□	OA232 AEDC 16T TF431 LA .2A RFN.1S	.000	.000
EVR017	◇	OA232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
EVR018	△	DATA NOT AVAILABLE	.000	.000
EVR019	◁	DATA NOT AVAILABLE	.000	.000
EVR020	▷	DATA NOT AVAILABLE	.000	.000

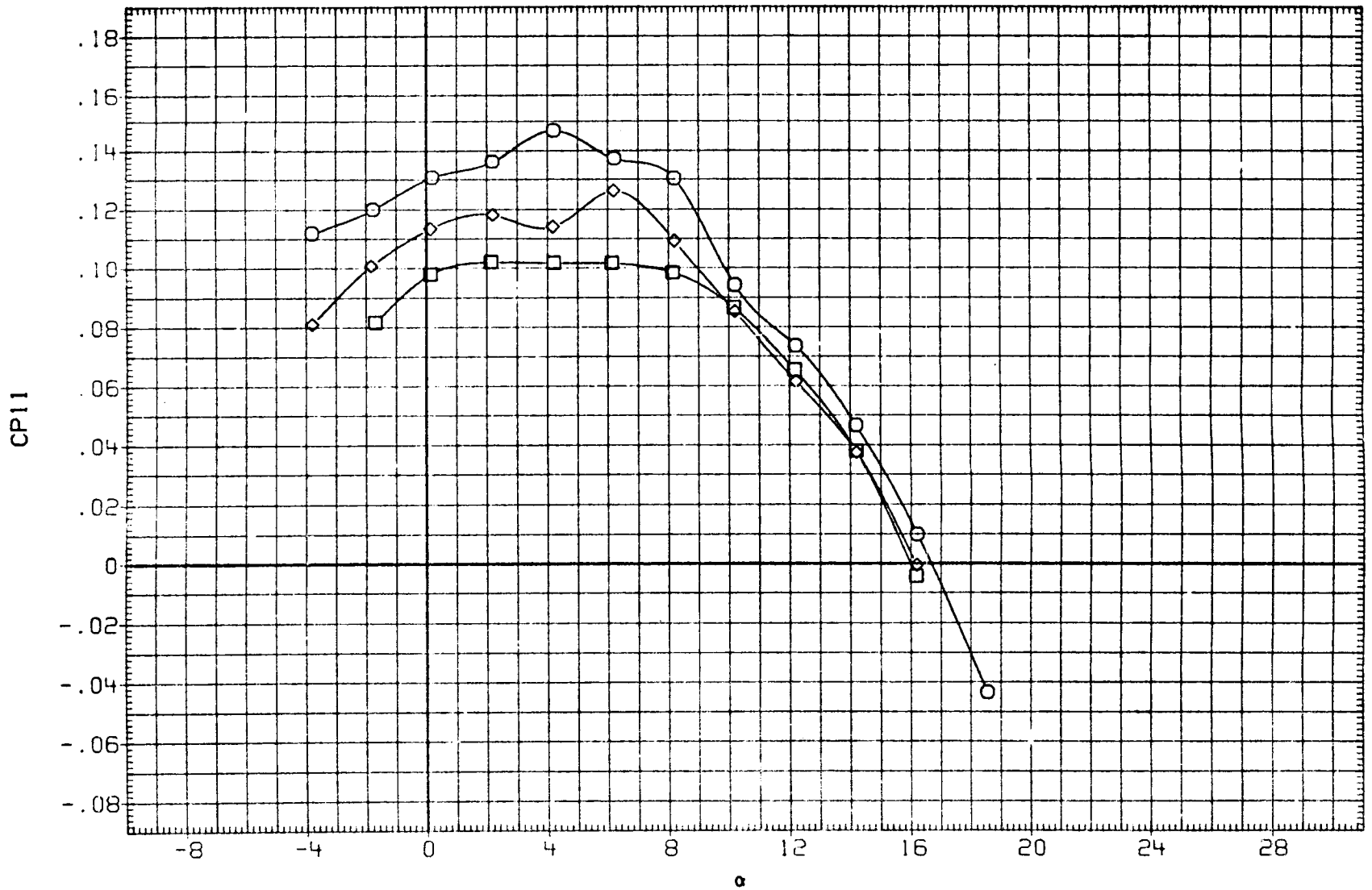


FIG. 84 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS
NOSE FLUSH PORT TAPS 11, 12, 13, 14

(A) MACH = .20 DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
EVR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
EVR014	□	0A232 AEDC 16T TF431 LA .2A RFN.1S	.000	.000
EVR017	◇	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
EVR018		DATA NOT AVAILABLE	.000	.000
EVR019		DATA NOT AVAILABLE	.000	.000
EVR020		DATA NOT AVAILABLE	.000	.000

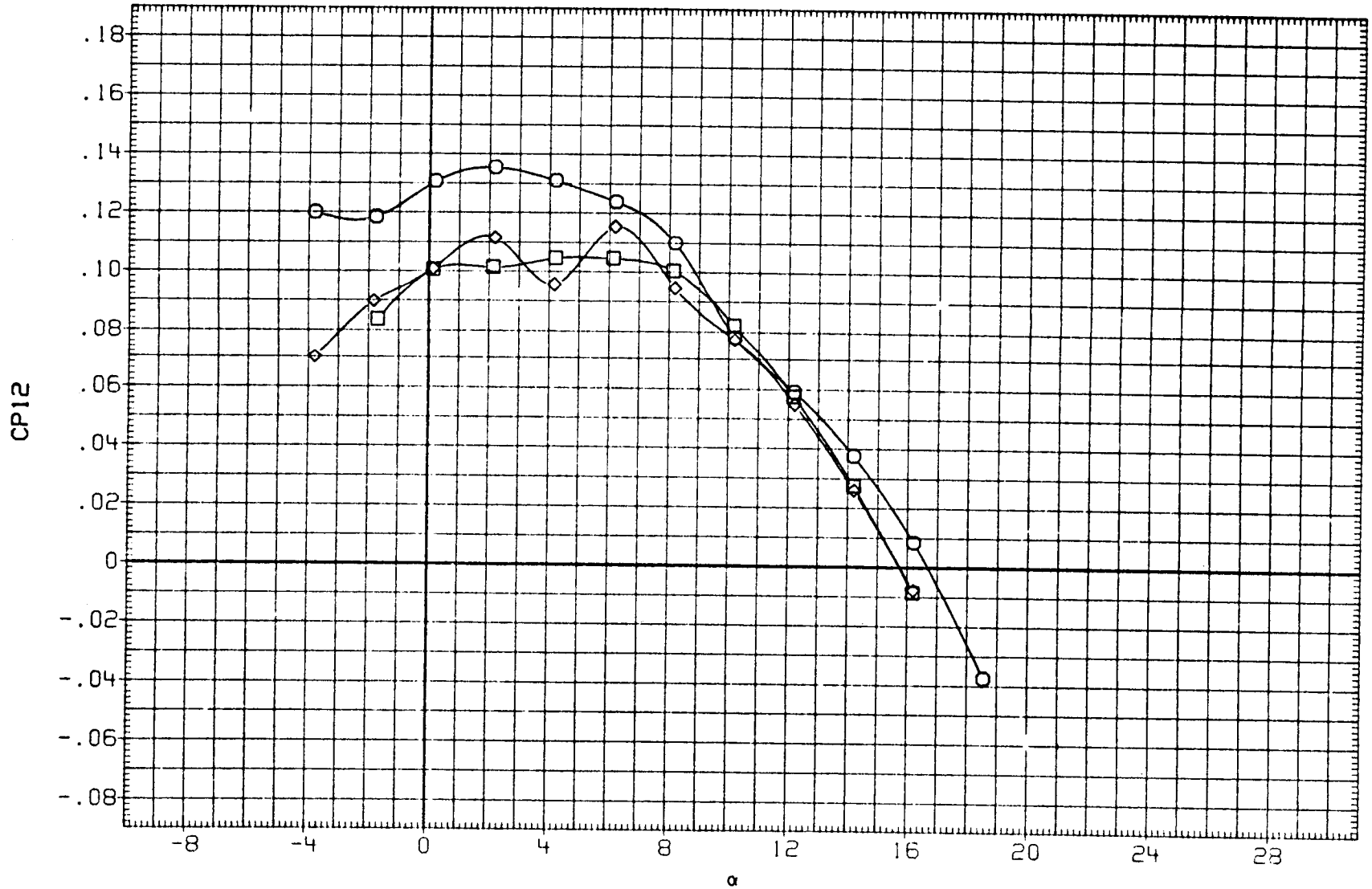


FIG. 84 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS
NOSE FLUSH PORT TAPS 11, 12, 13, 14

(A) MACH = .20 DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
EVR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
EVR014	□	0A232 AEDC 16T TF431 LA .2A RFN.1S	.000	.000
EVR017	◇	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
EVR018	△	DATA NOT AVAILABLE	.000	.000
EVR019	◁	DATA NOT AVAILABLE	.000	.000
EVR020	▷	DATA NOT AVAILABLE	.000	.000

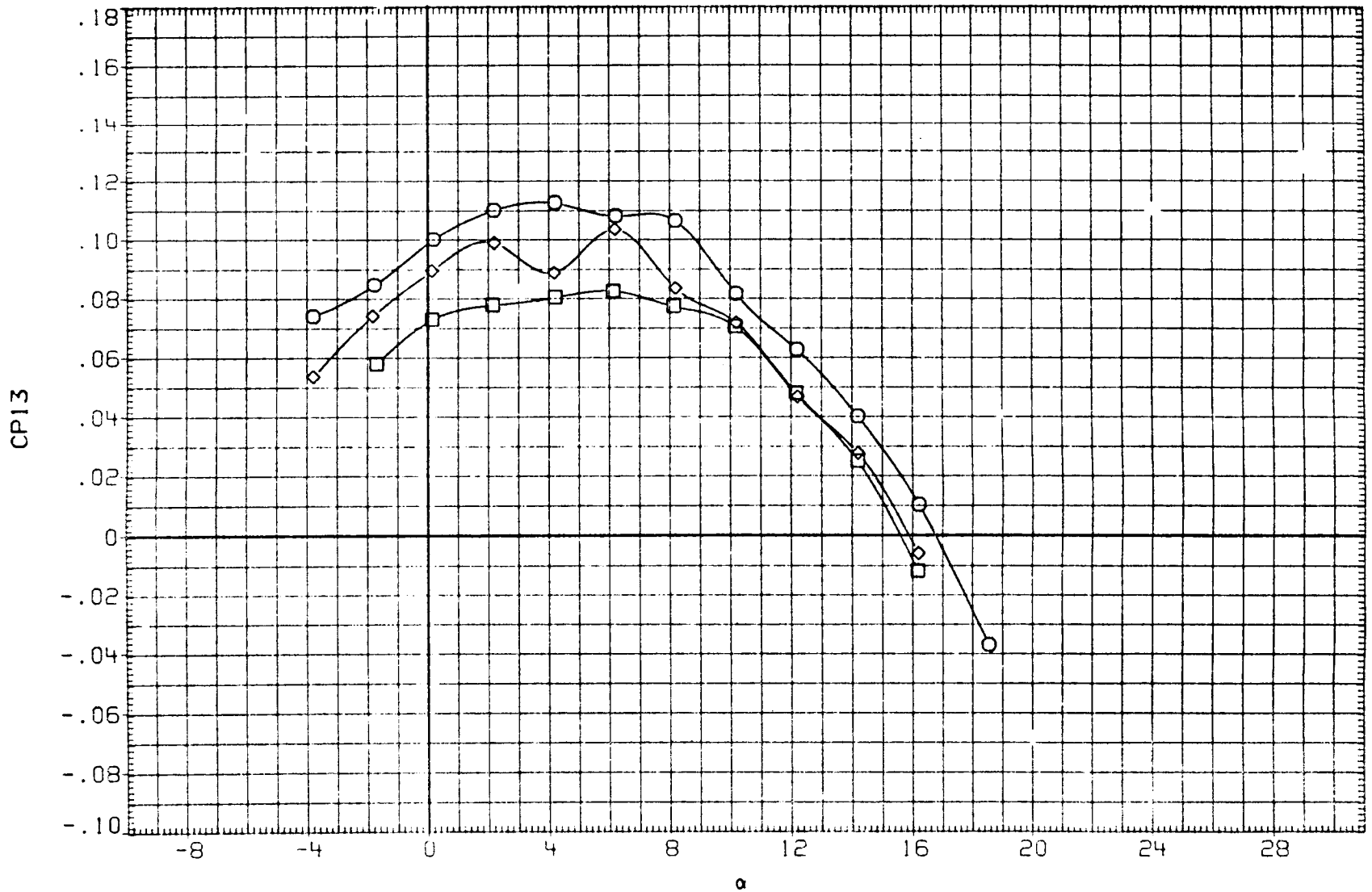


FIG. 84 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS
NOSE FLUSH PORT TAPS 11, 12, 13, 14

(A) MACH = .20 DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
EVR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
EVR014	□	0A232 AEDC 16T TF431 LA .2A RFN.1S	.000	.000
EVR017	◇	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
EVR018	△	DATA NOT AVAILABLE	.000	.000
EVR019	◁	DATA NOT AVAILABLE	.000	.000
EVR020	▷	DATA NOT AVAILABLE	.000	.000

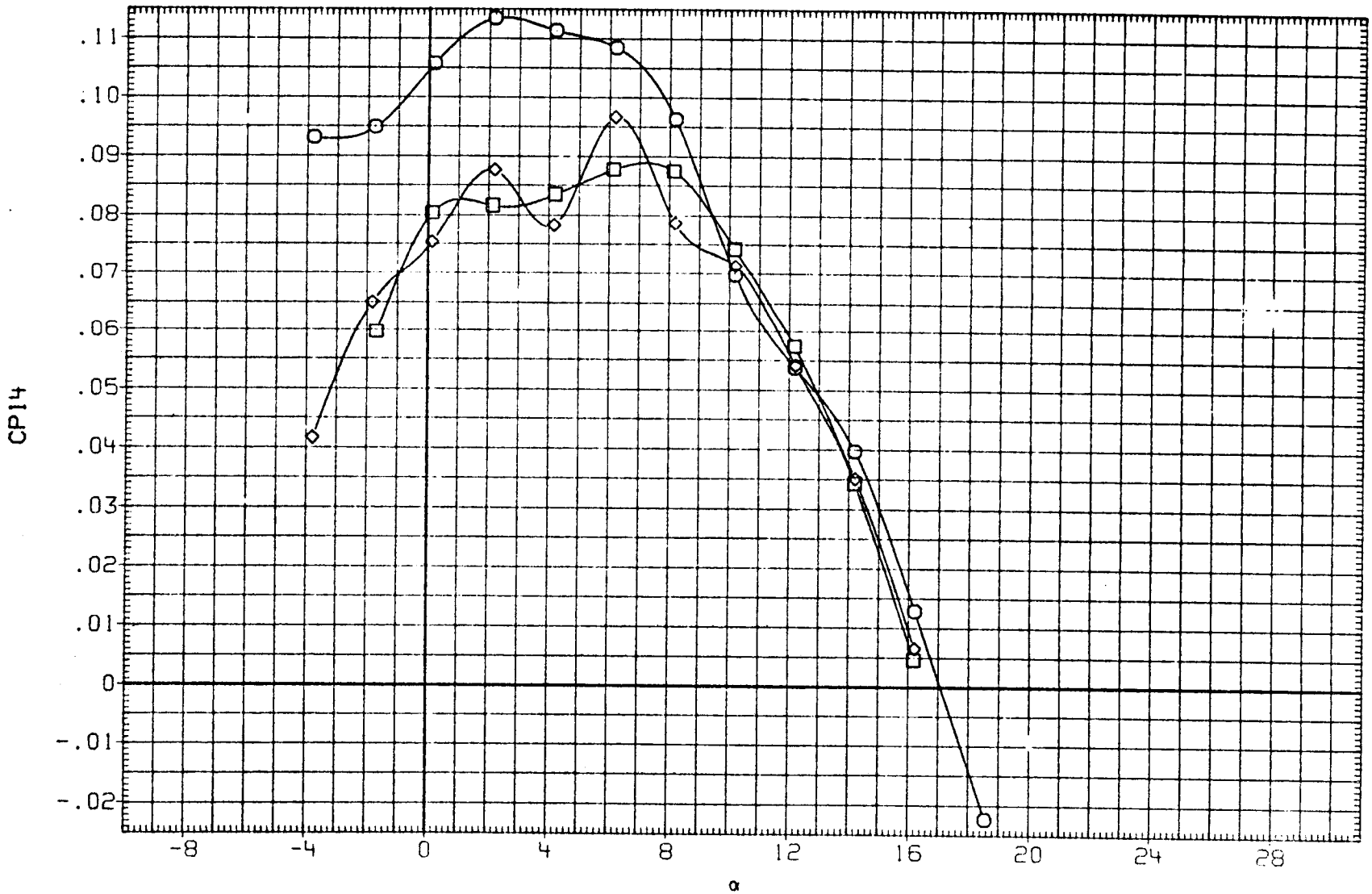


FIG. 84 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS
NOSE FLUSH PORT TAPS 11, 12, 13, 14

(A)MACH = .20 DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
EVR001	○	OA232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
EVR014	□	DATA NOT AVAILABLE	.000	.000
EVR017	◇	OA232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
EVR018	△	DATA NOT AVAILABLE	.000	.000
EVR019	◺	DATA NOT AVAILABLE	.000	.000
EVR020	▱	DATA NOT AVAILABLE	.000	.000

FIG. 84 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS
NOSE FLUSH PORT TAPS 11, 12, 13, 14

(B)MACH = .25 DATE 27 JUN 78 PAGE 260

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
EVR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
EVR014	□	DATA NOT AVAILABLE	.000	.000
EVR017	◇	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
EVR018	△	DATA NOT AVAILABLE	.000	.000
EVR019	▷	DATA NOT AVAILABLE	.000	.000
EVR020	⬠	DATA NOT AVAILABLE	.000	.000

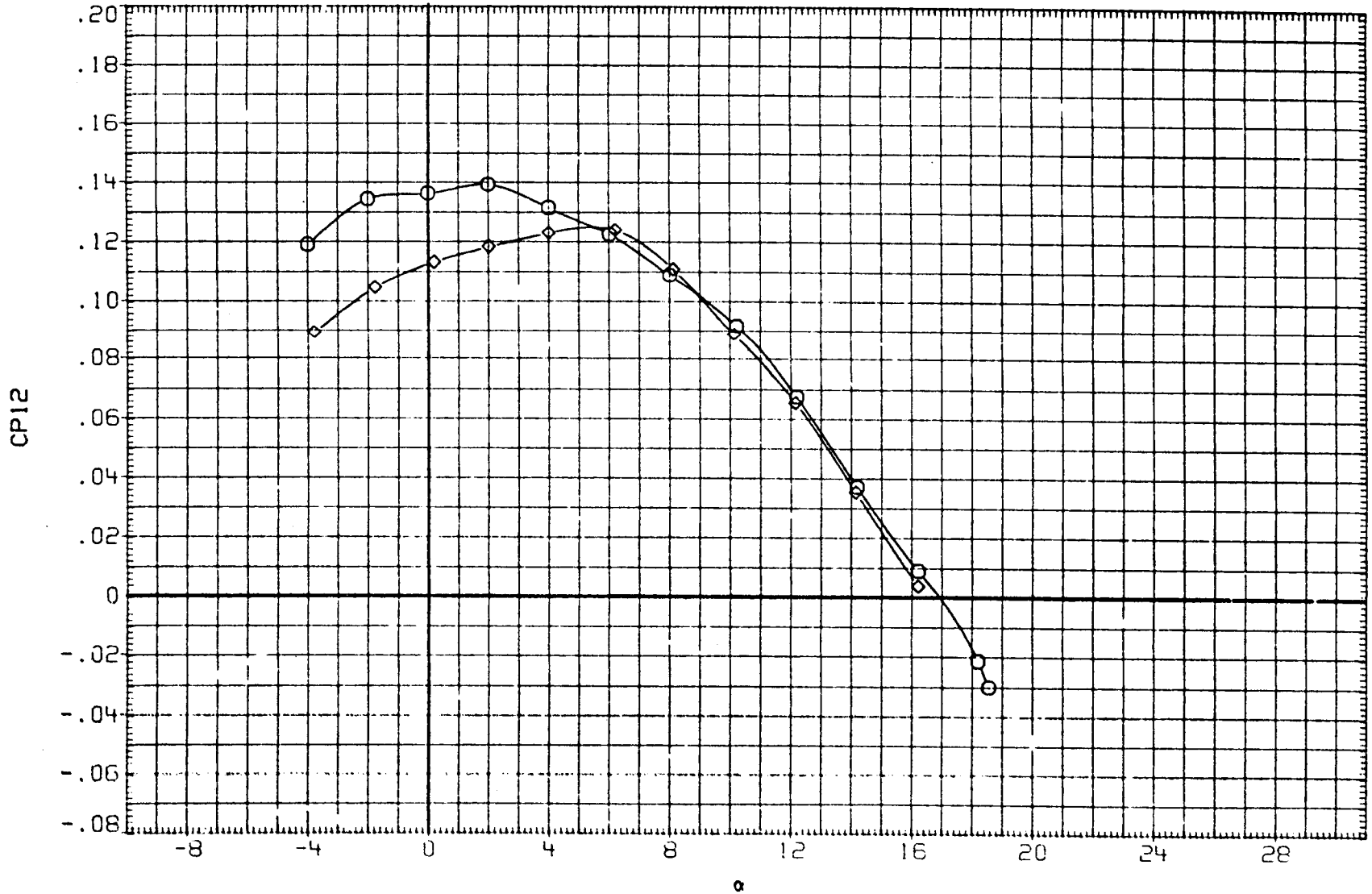


FIG. 84 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS
NOSE FLUSH PORT TAPS 11, 12, 13, 14

(B)MACH = .25 DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
EVR001	○	OA232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
EVR014	□	DATA NOT AVAILABLE	.000	.000
EVR017	◇	OA232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
EVR018	△	DATA NOT AVAILABLE	.000	.000
EVR019	▷	DATA NOT AVAILABLE	.000	.000
EVR020	D	DATA NOT AVAILABLE	.000	.000

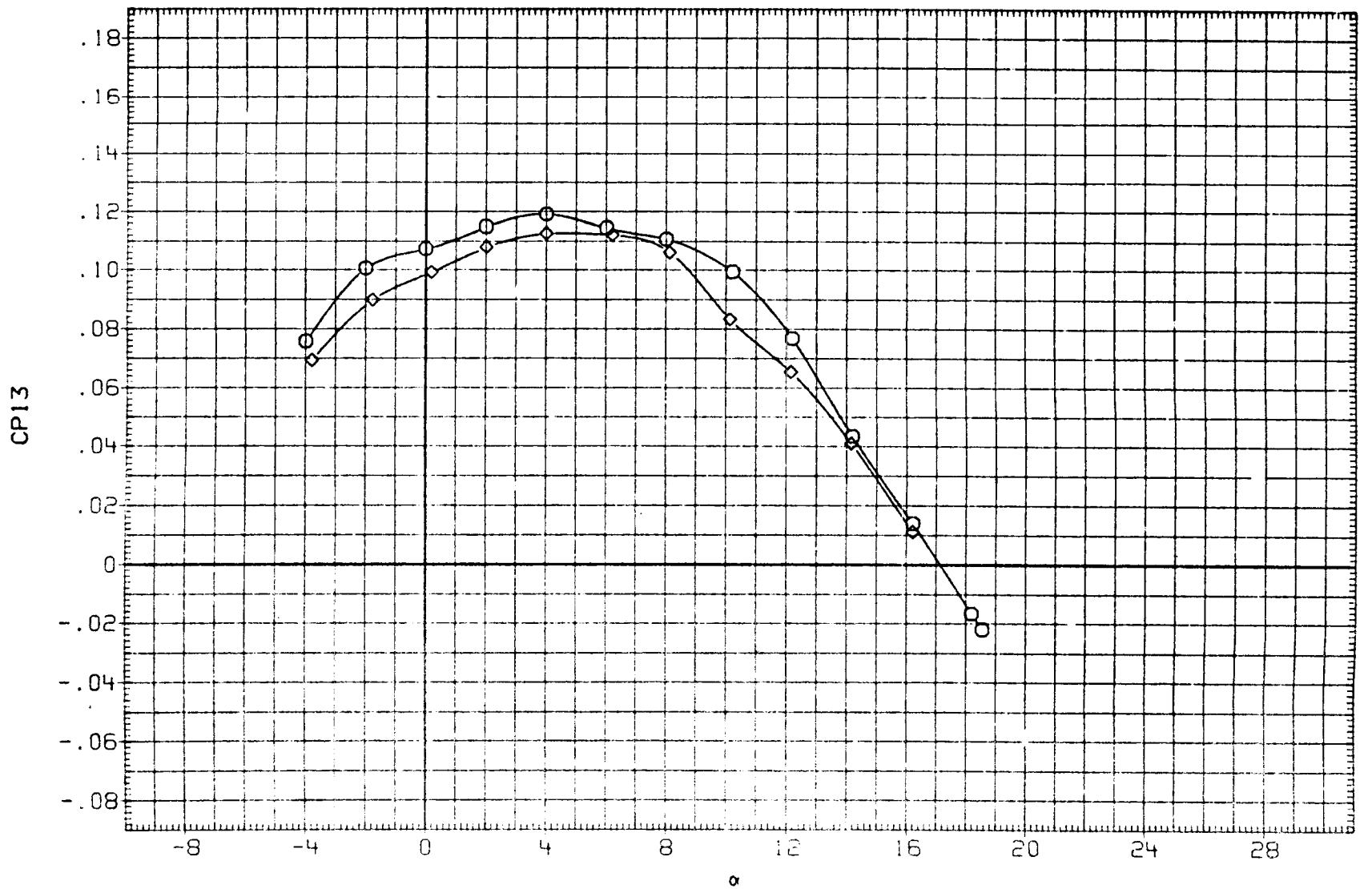


FIG. 84 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS
NOSE FLUSH PORT TAPS 11, 12, 13, 14

(B)MACH = .25 DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
EVR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
EVR014	□	DATA NOT AVAILABLE	.000	.000
EVR017	◇	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
EVR018	△	DATA NOT AVAILABLE	.000	.000
EVR019	▽	DATA NOT AVAILABLE	.000	.000
EVR020	D	DATA NOT AVAILABLE	.000	.000

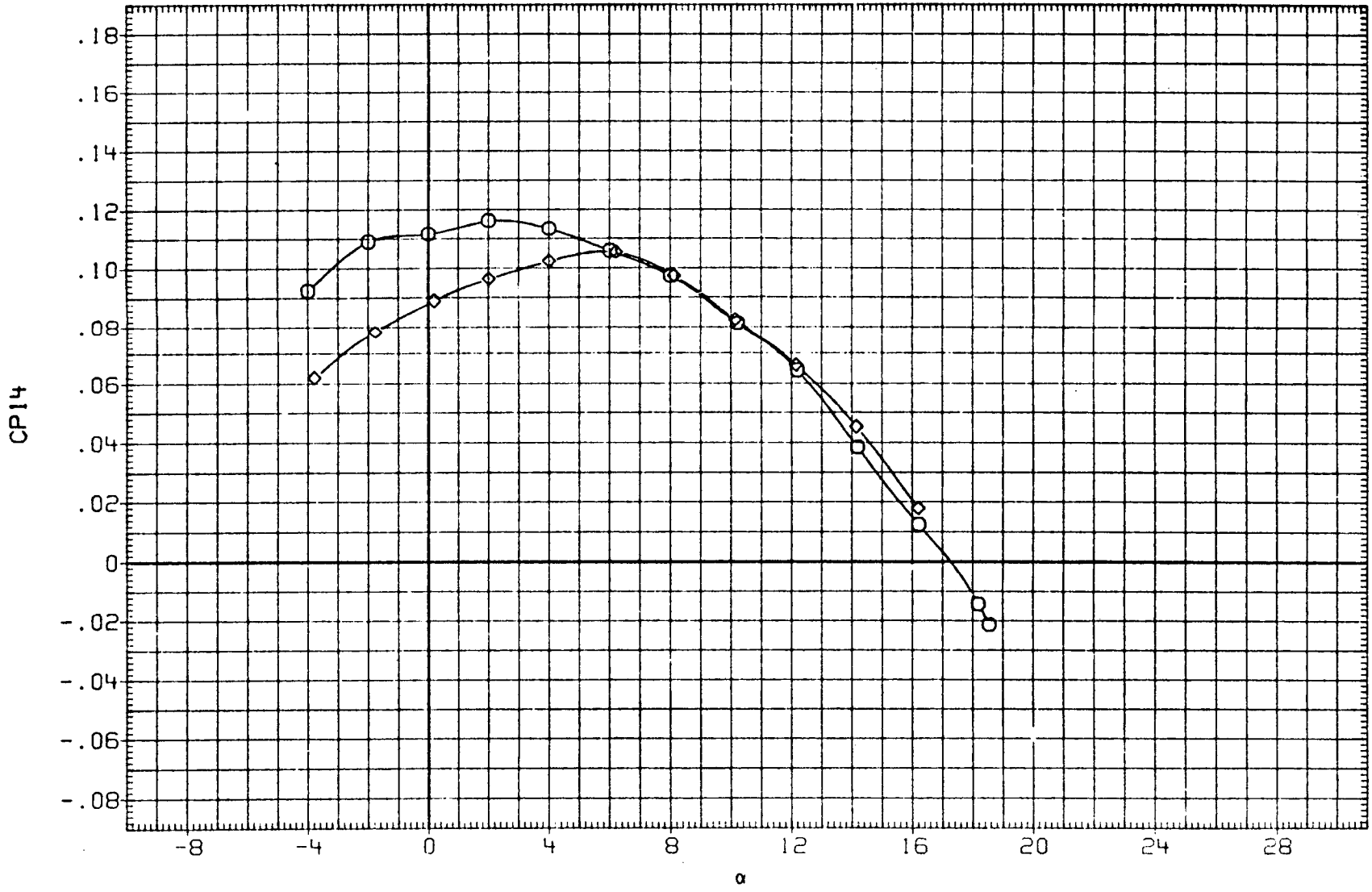


FIG. 84 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS
NOSE FLUSH PORT TAPS 11, 12, 13, 14

(B) MACH = .25 DATE 27 JUN 78 PAGE 263

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
EVR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
EVR014	□	0A232 AEDC 16T TF431 LA .2A RFN.1S	.000	.000
EVR017	◇	DATA NOT AVAILABLE	.000	.000
EVR018	△	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
EVR019	▽	DATA NOT AVAILABLE	.000	.000
EVR020	◻	DATA NOT AVAILABLE	.000	.000

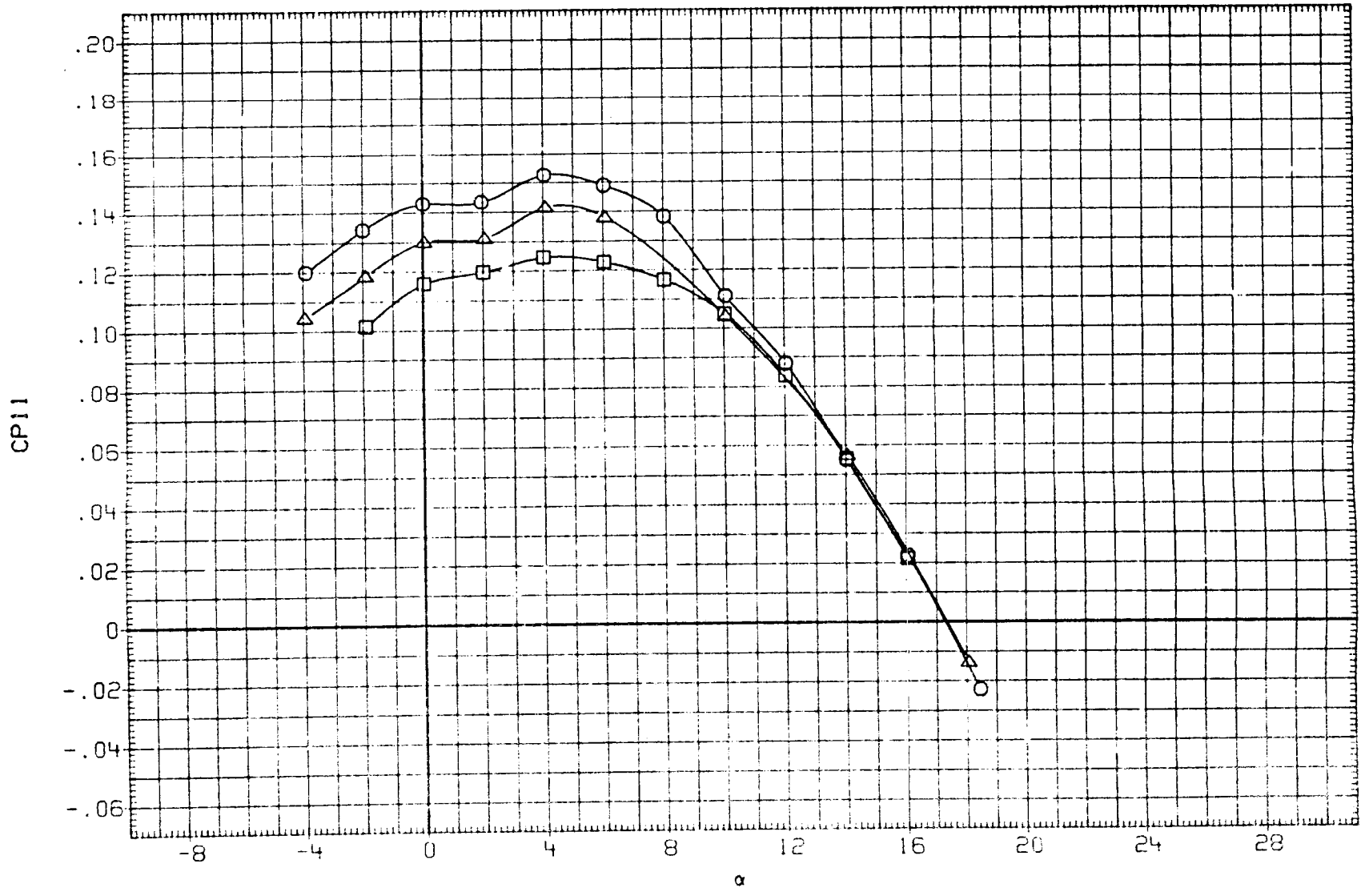


FIG. 84 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS
NOSE FLUSH PORT TAPS 11, 12, 13, 14

(C)MACH = .40 DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
EVR001	○	0A232 AEDC 16T TF431 LF0.2P/S RF0.2A FTP	.000	.000
EVR014	□	0A232 AEDC 16T TF431 LA .2A RFN.1S	.000	.000
EVR017	◇	DATA NOT AVAILABLE	.000	.000
EVR018	△	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
EVR019	▷	DATA NOT AVAILABLE	.000	.000
EVR020	D	DATA NOT AVAILABLE	.000	.000

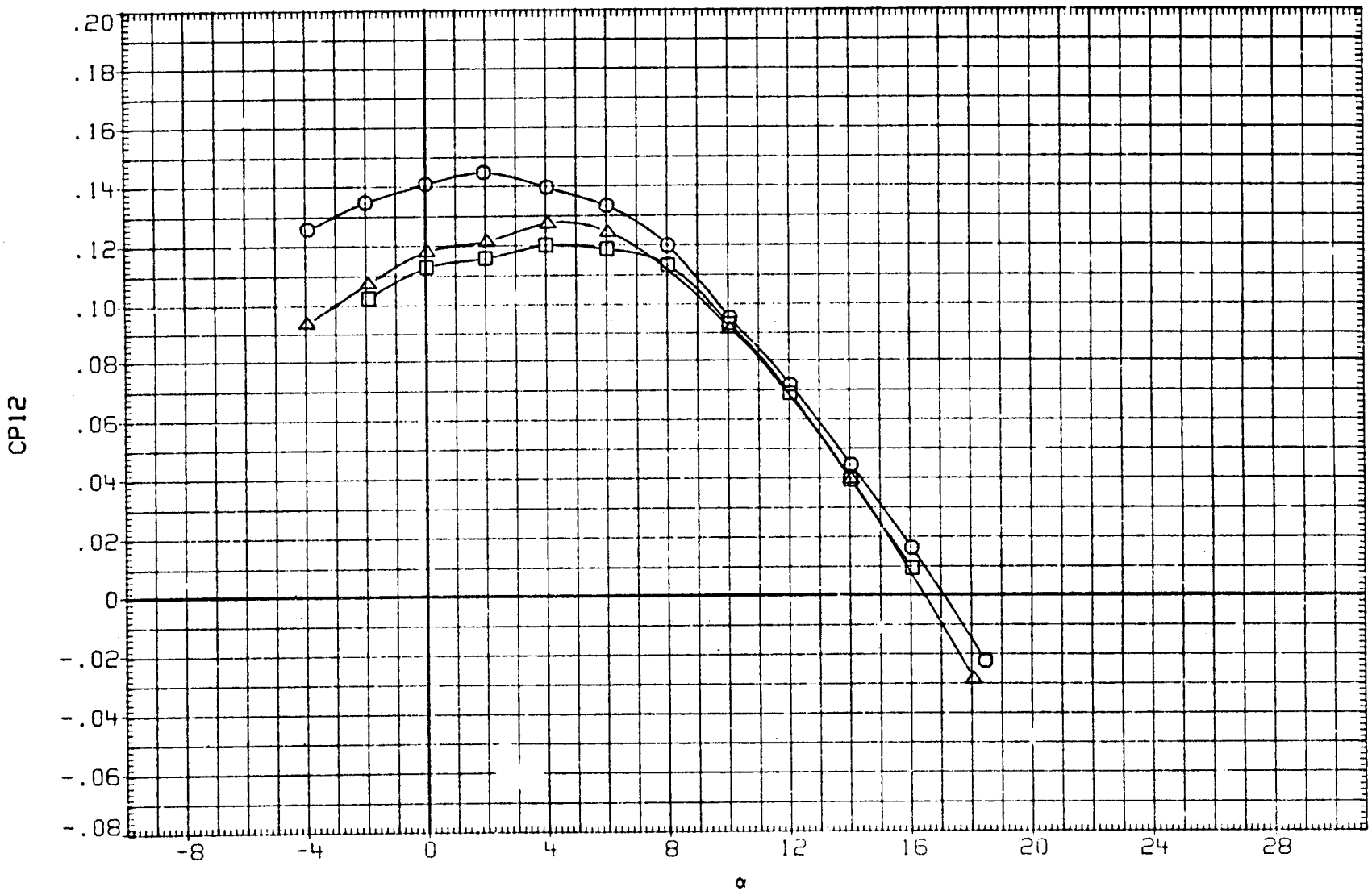


FIG. 84 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS
NOSE FLUSH PORT TAPS 11, 12, 13, 14

(C)MACH = .40 DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION				BETA	PHI
EVR001	○	0A232 AEDC 16T TF431	LFO.2P/S	RFO.2A	FTP	.000	.000
EVR014	□	0A232 AEDC 16T TF431	LA .2A	RFN.1S		.000	.000
EVR017	◇	DATA NOT AVAILABLE				.000	.000
EVR018	△	0A232 AEDC 16T TF431	LA .2A	RFN.1S	FTP	.000	.00
EVR019	▷	DATA NOT AVAILABLE				.000	.
EVR020	D	DATA NOT AVAILABLE				.000	

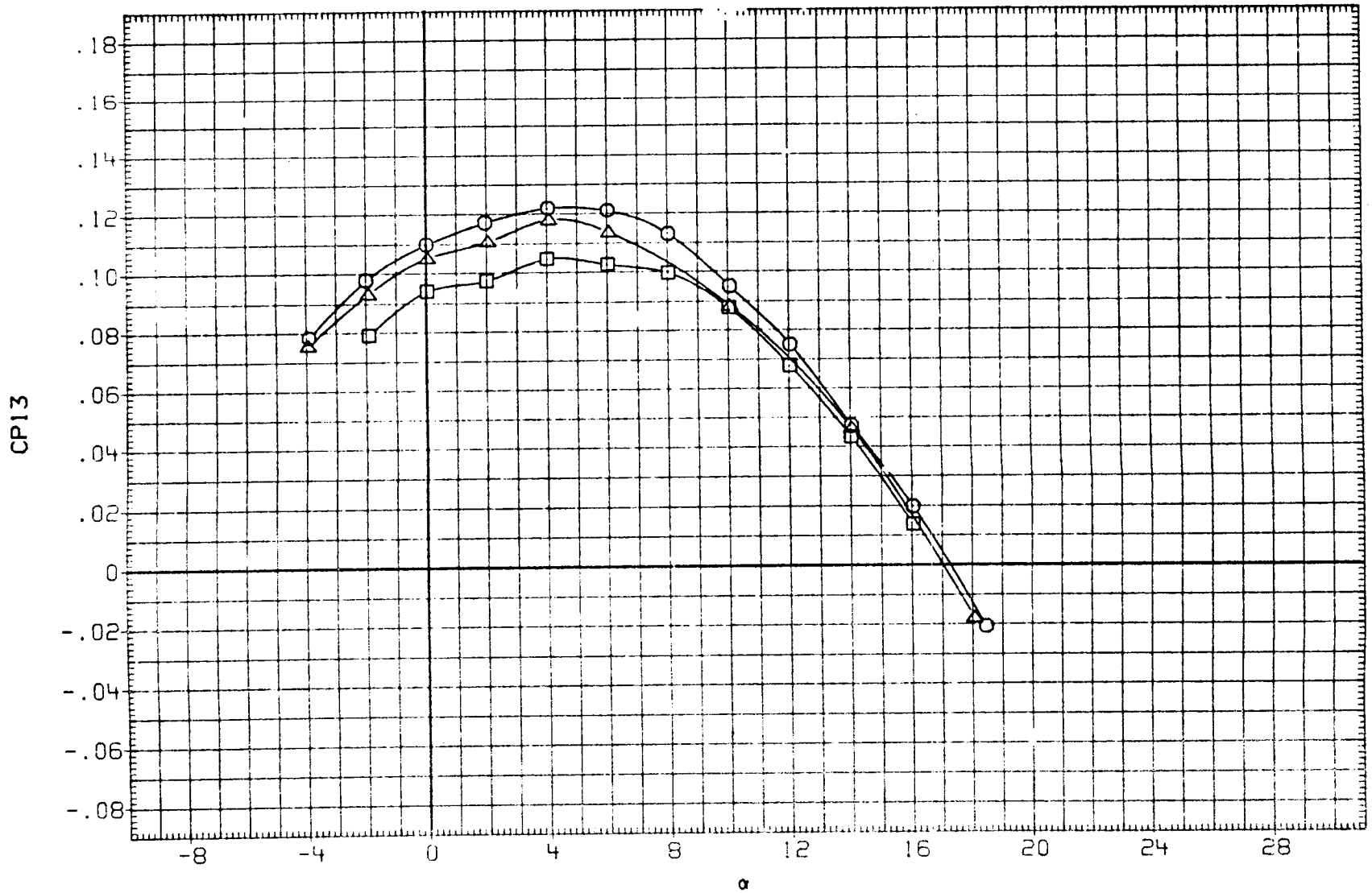


FIG. 84 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS
NOSE FLUSH PORT TAPS 11, 12, 13, 14

(C)MACH = .40 DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
EVR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
EVR014	□	0A232 AEDC 16T TF431 LA .2A RFN.1S	.000	.000
EVR017	◇	DATA NOT AVAILABLE	.000	.000
EVR018	△	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
EVR019	▽	DATA NOT AVAILABLE	.000	.000
EVR020	▷	DATA NOT AVAILABLE	.000	.000

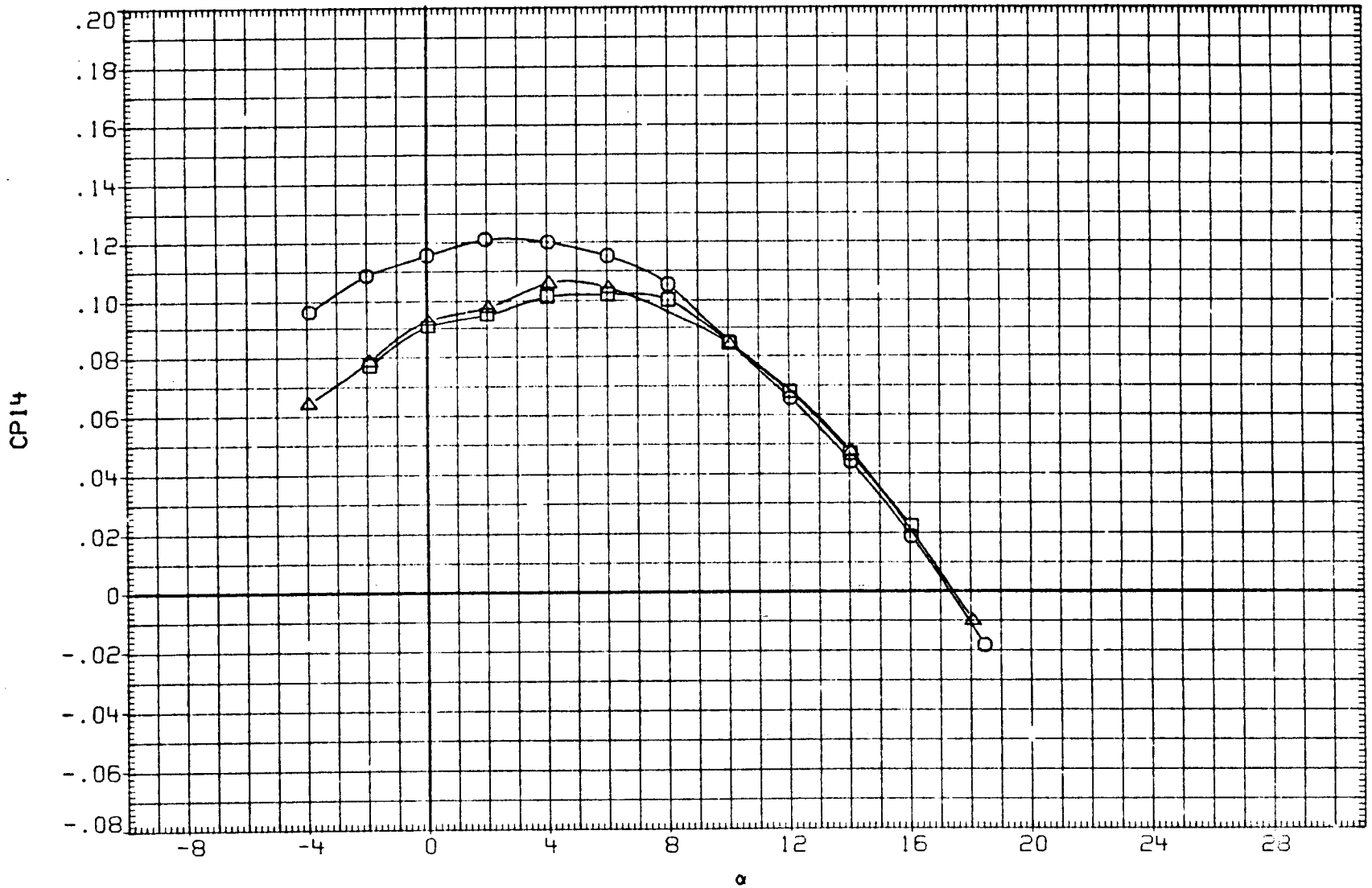


FIG. 84 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS
NOSE FLUSH PORT TAPS 11, 12, 13, 14

(C)MACH = .40 DATE 27 JUN 78 PAGE 267

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
EVR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
EVR014	□	0A232 AEDC 16T TF431 LA .2A RFN.1S	.000	.000
EVR017	◇	DATA NOT AVAILABLE	.000	.000
EVR018	△	DATA NOT AVAILABLE	.000	.000
EVR019	◁	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
EVR020	▷	DATA NOT AVAILABLE	.000	.000

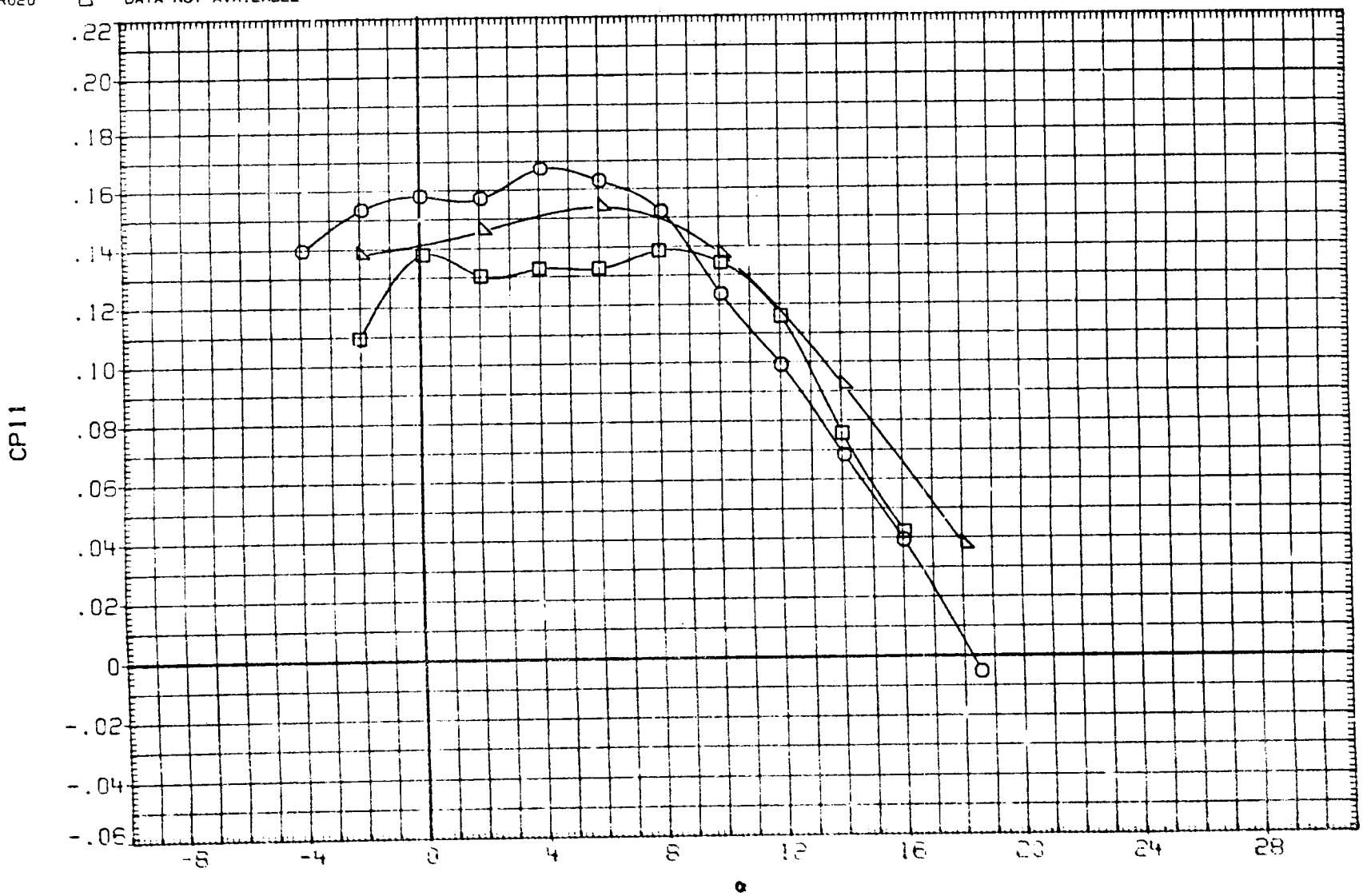


FIG. 84 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS
NOSE FLUSH PORT TAPS 11, 12, 13, 14

(D)MACH = .60 DATE 27 JUN 75

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
EVR001	○	OA232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
EVR014	□	OA232 AEDC 16T TF431 LA .2A RFN.1S	.000	.000
EVR017	◇	DATA NOT AVAILABLE	.000	.000
EVR018	△	DATA NOT AVAILABLE	.000	.000
EVR019	▷	OA232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
EVR020	D	DATA NOT AVAILABLE	.000	.000

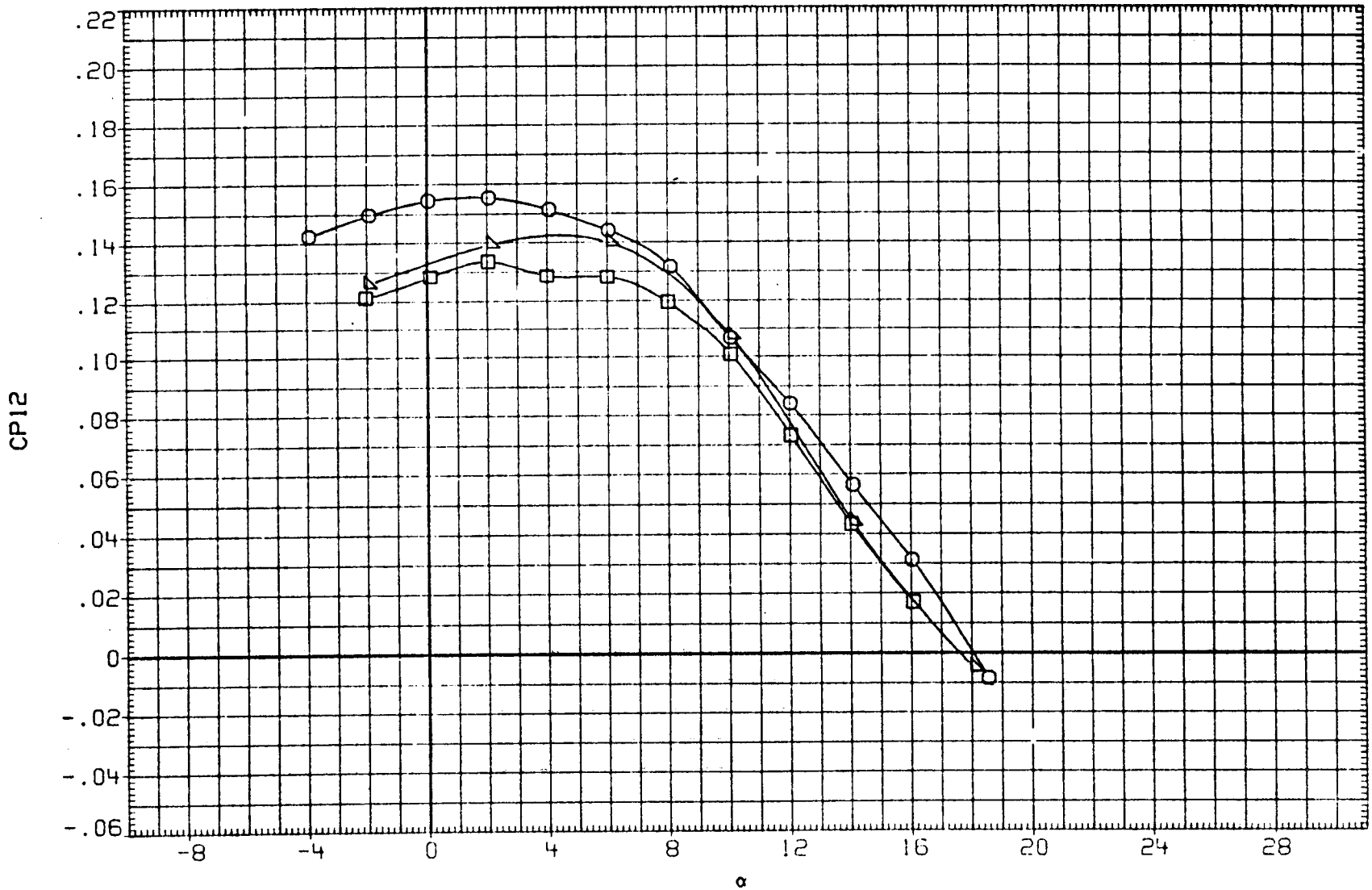


FIG. 84 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS
NOSE FLUSH PORT TAPS 11, 12, 13, 14

(D)MACH = .60 DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
EVR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
EVR014	□	0A232 AEDC 16T TF431 LA .2A RFN.1S	.000	.000
EVR017	◇	DATA NOT AVAILABLE	.000	.000
EVR018	△	DATA NOT AVAILABLE	.000	.000
EVR019	▷	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
EVR020	D	DATA NOT AVAILABLE	.000	.000

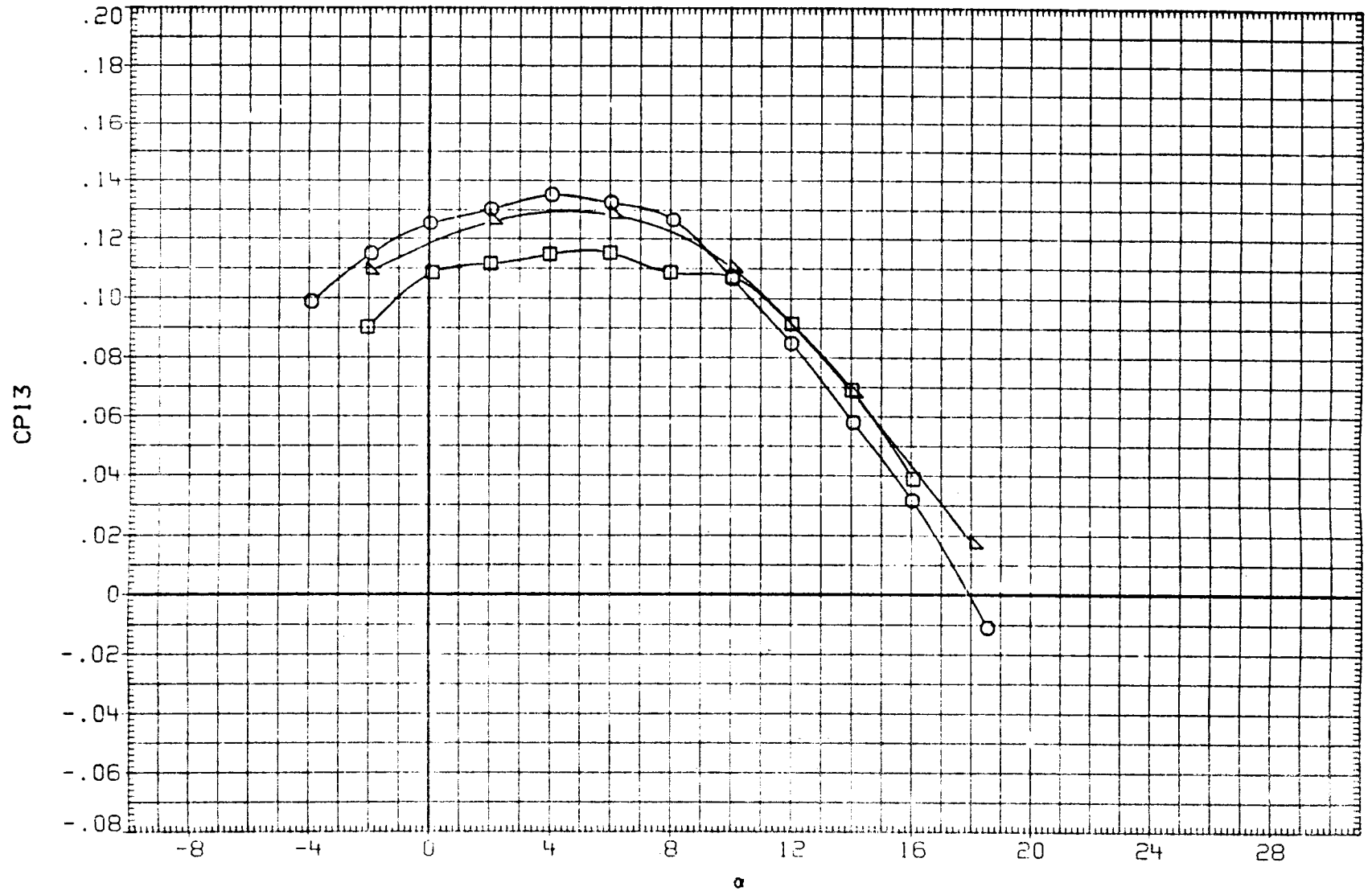


FIG. 84 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS
NOSE FLUSH PORT TAPS 11, 12, 13, 14

(D) MACH = .60 DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
EVR001	○	OA232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
EVR014	□	OA232 AEDC 16T TF431 LA .2A RFN.1S	.000	.000
EVR017	◇	DATA NOT AVAILABLE	.000	.000
EVR018	△	DATA NOT AVAILABLE	.000	.000
EVR019	◁	OA232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
EVR020	D	DATA NOT AVAILABLE	.000	.000

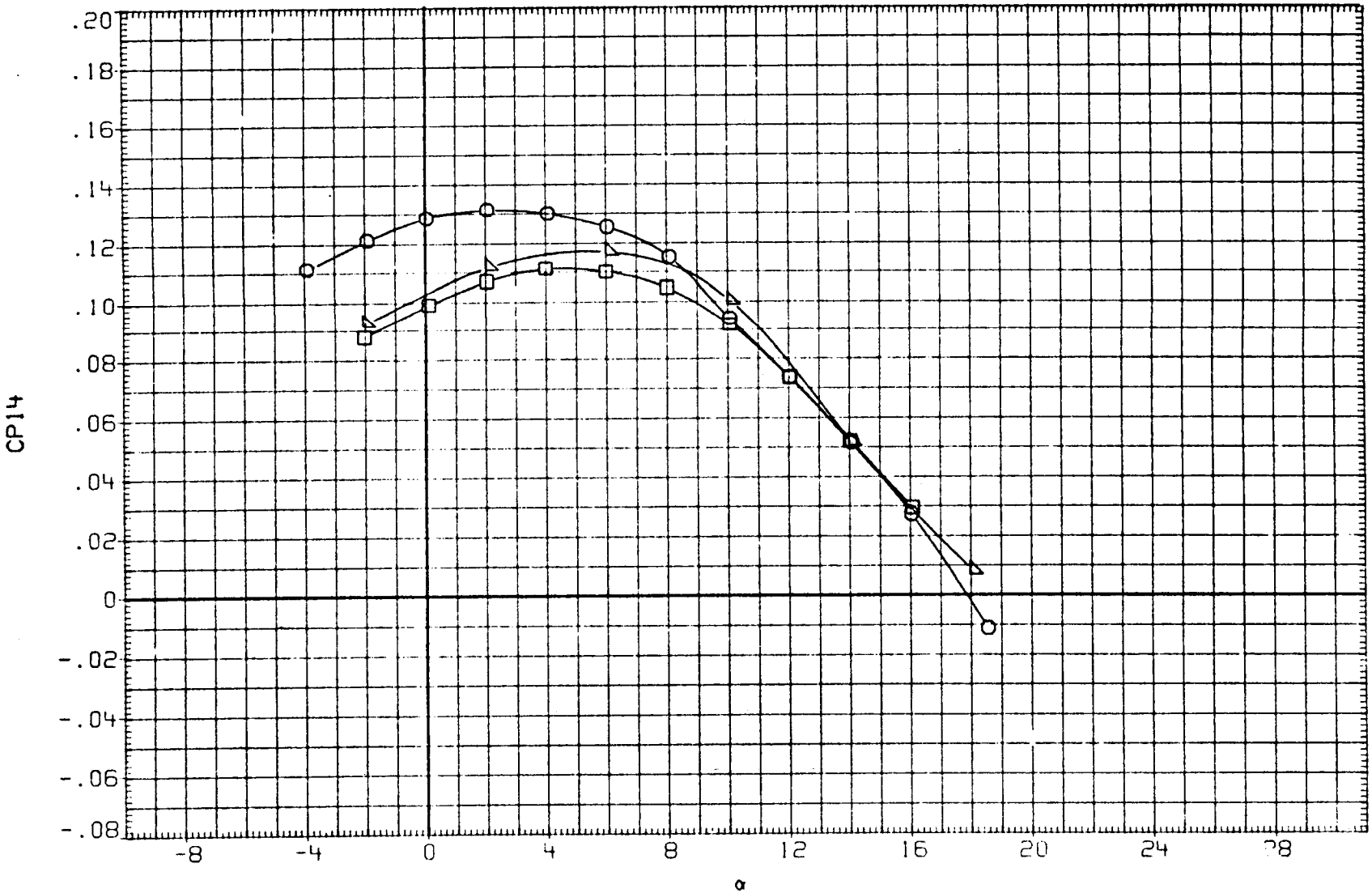


FIG. 84 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS
NOSE FLUSH PORT TAPS 11, 12, 13, 14

(D)MACH = .60 DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
EVR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
EVR014	□	0A232 AEDC 16T TF431 LA .2A RFN.1S	.000	.000
EVR017	◇	DATA NOT AVAILABLE	.000	.000
EVR018	△	DATA NOT AVAILABLE	.000	.000
EVR019	▷	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
EVR020	D	DATA NOT AVAILABLE	.000	.000

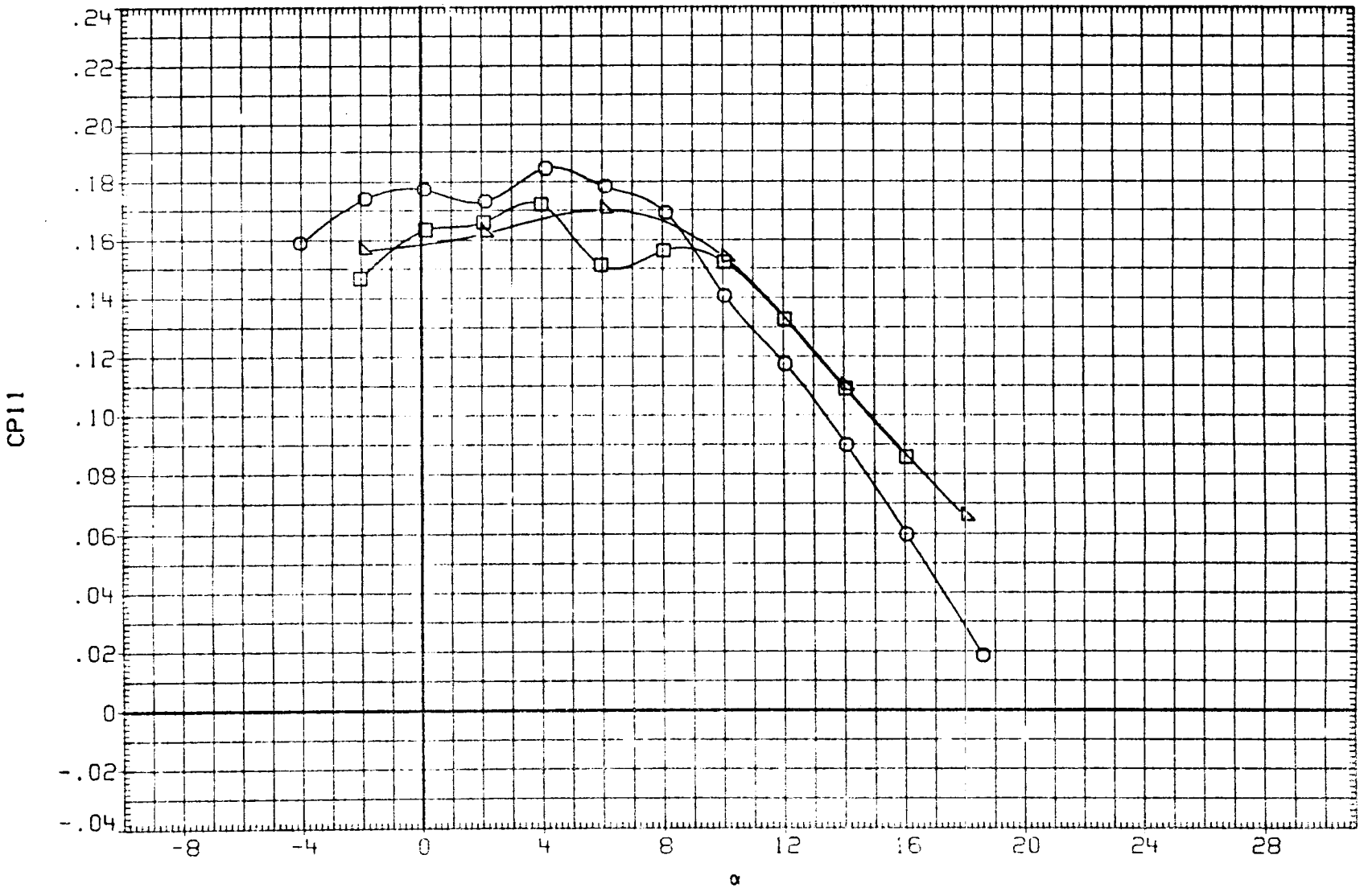


FIG. 84 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS
NOSE FLUSH PORT TAPS 11, 12, 13, 14

(E)MACH = .70 DATE 27 JUN 78 PAGE 272

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
EVR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
EVR014	□	0A232 AEDC 16T TF431 LA .2A RFN.1S	.000	.000
EVR017	◇	DATA NOT AVAILABLE	.000	.000
EVR018	△	DATA NOT AVAILABLE	.000	.000
EVR019	▷	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
EVR020	▱	DATA NOT AVAILABLE	.000	.000

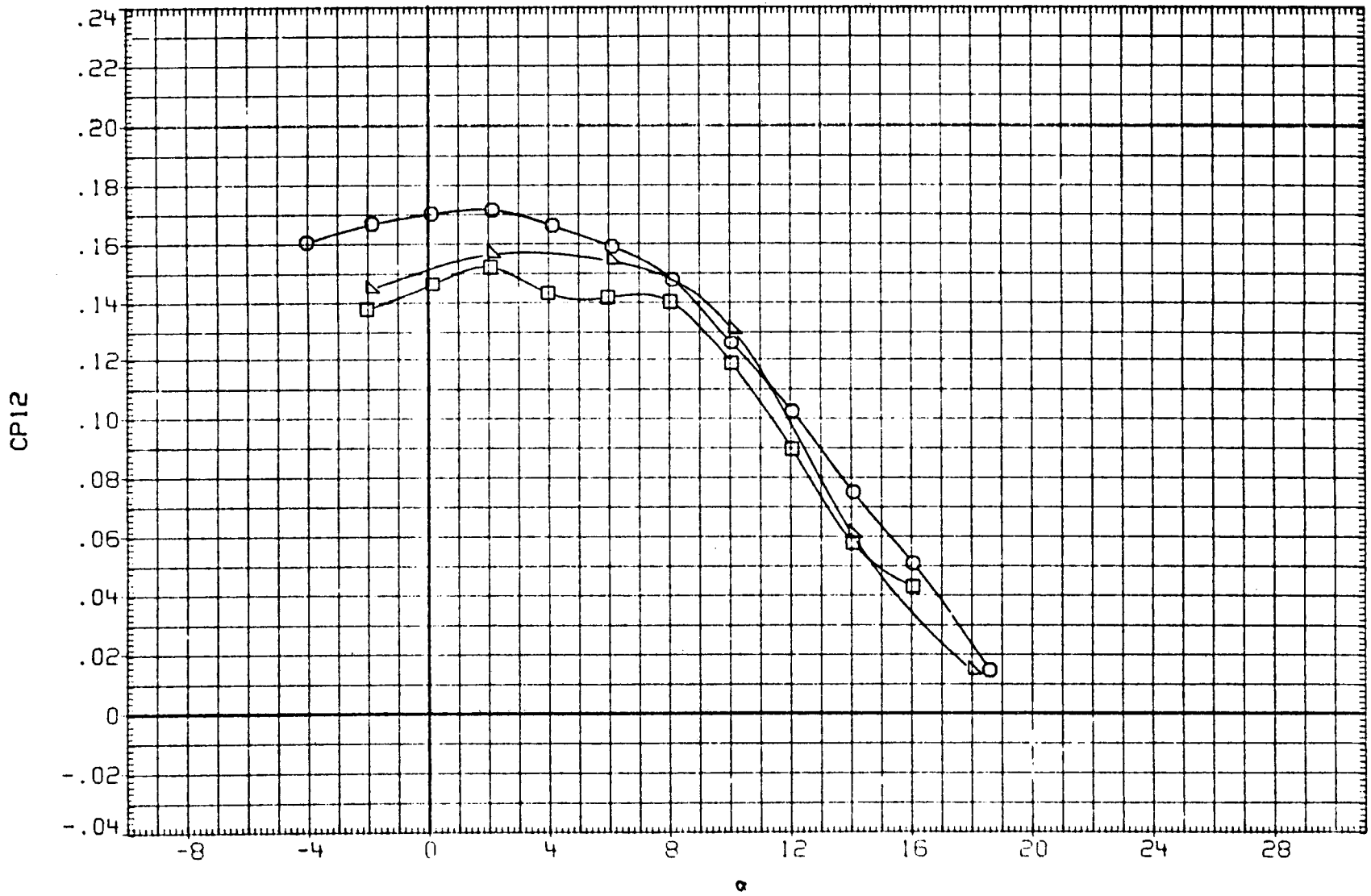


FIG. 84 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS
NOSE FLUSH PORT TAPS 11, 12, 13, 14

(E)MACH = .70 DATE 27 JUN 78 PAGE 273

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
EVR001	○	OA232 AEDC 16T TF431	LFO.2P/S	RFO.2A	FTP		.000	.000
EVR014	□	OA232 AEDC 16T TF431	LA .2A	RFN.1S			.000	.000
EVR017	◇	DATA NOT AVAILABLE					.000	.000
EVR018	△	DATA NOT AVAILABLE					.000	.000
EVR019	▽	OA232 AEDC 16T TF431	LA .2A	RFN.1S	FTP		.000	.000
EVR020	D	DATA NOT AVAILABLE					.000	.000

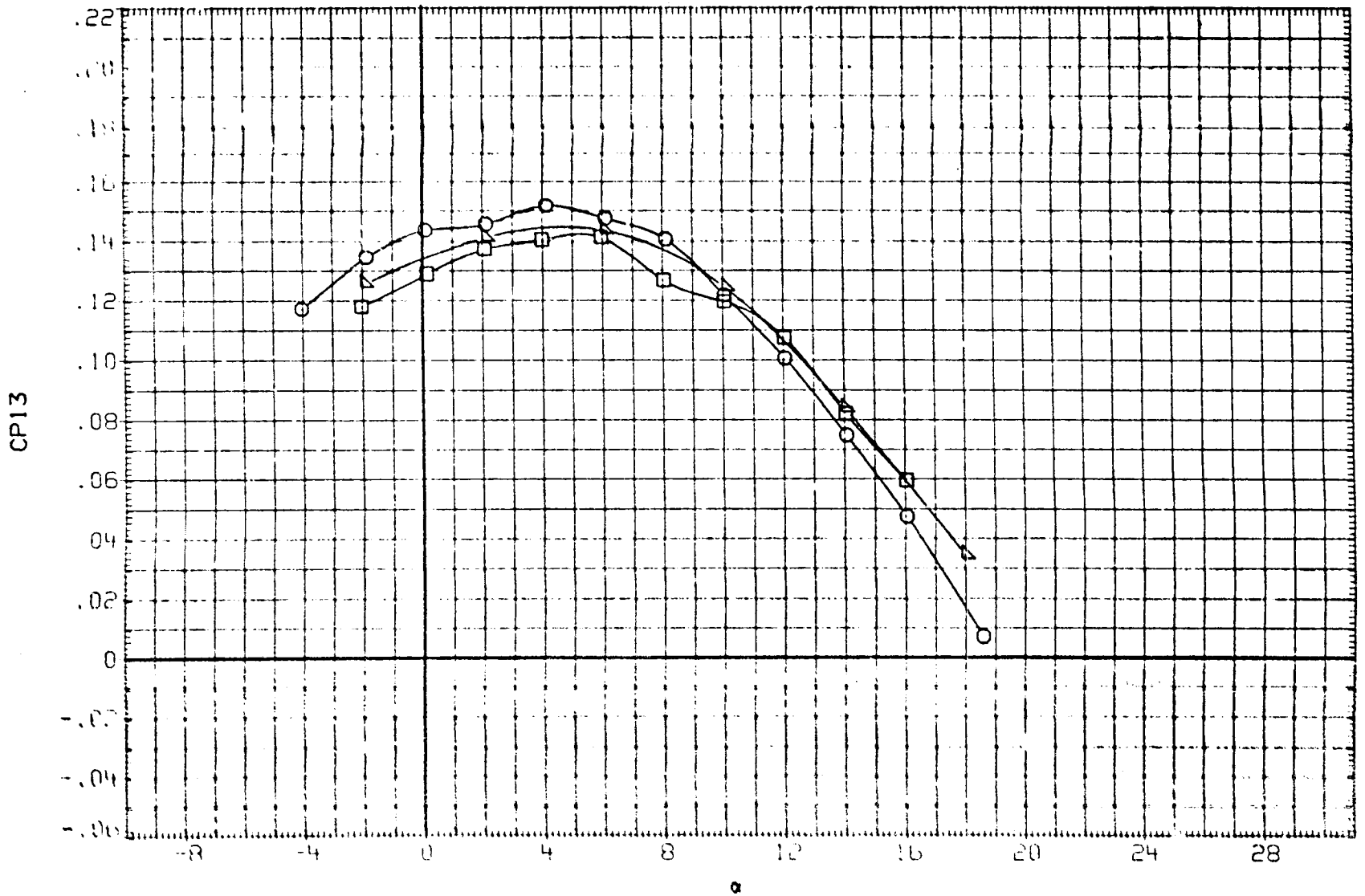


FIG. 84 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS NOSE FLUSH PORT TAPS 11, 12, 13, 14

(1) MACH = .70

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
EVR001	○	0A232 AEDC 16T TF431 LF0.2P/S RF0.2A FTP	.000	.000
EVR014	□	0A232 AEDC 16T TF431 LA .2A RFN.1S	.000	.000
EVR017	◇	DATA NOT AVAILABLE	.000	.000
EVR018	△	DATA NOT AVAILABLE	.000	.000
EVR019	◁	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
EVR020	D	DATA NOT AVAILABLE	.000	.000

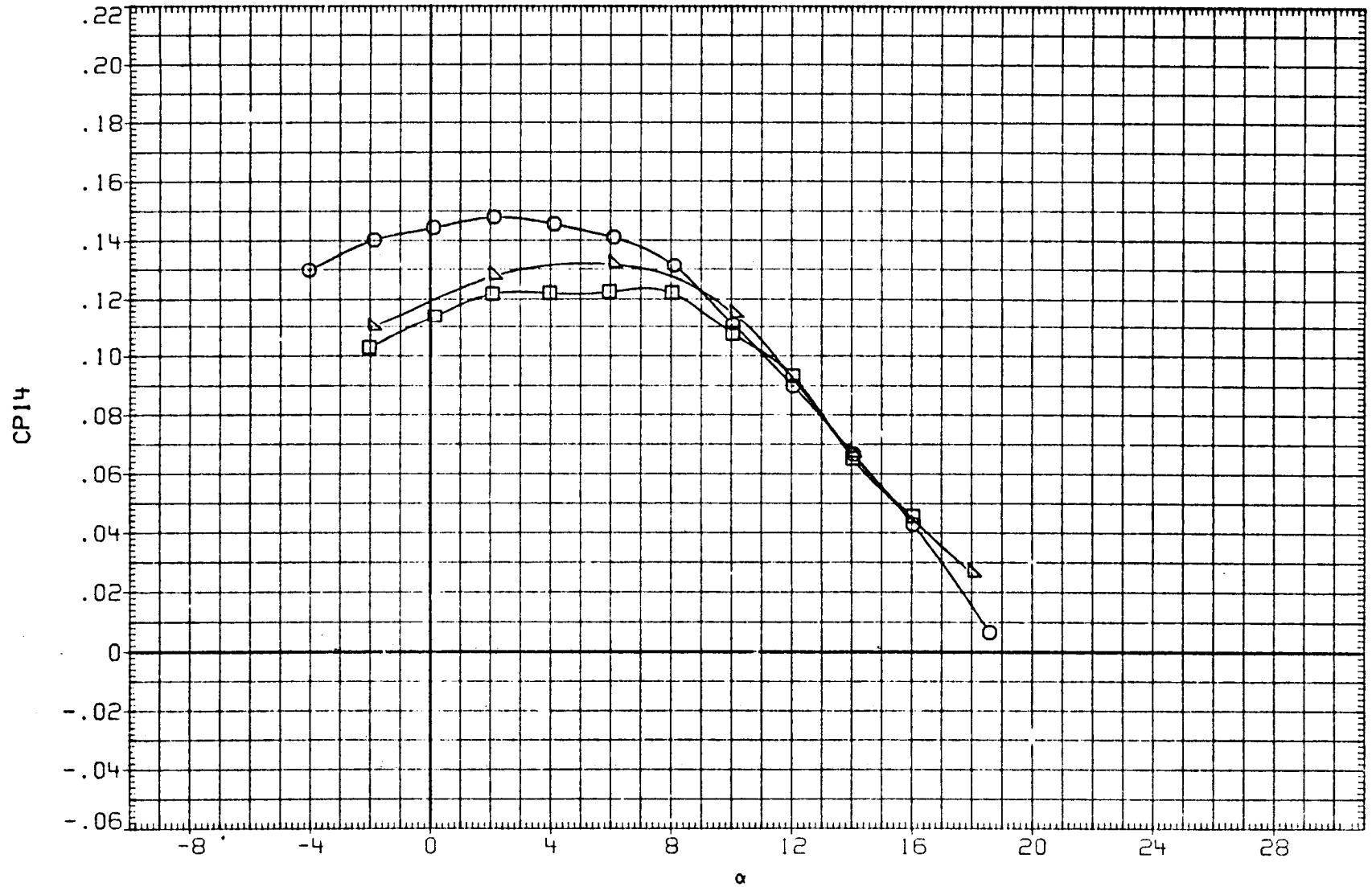


FIG. 84 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS
NOSE FLUSH PORT TAPS 11, 12, 13, 14

(E)MACH = .70 DATE 27 JUN 78 PAGE 275

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
EVR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
EVR014	□	0A232 AEDC 16T TF431 LA .2A RFN.1S	.000	.000
EVR017	◇	DATA NOT AVAILABLE	.000	.000
EVR018	△	DATA NOT AVAILABLE	.000	.000
EVR019	▷	DATA NOT AVAILABLE	.000	.000
EVR020	D	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000

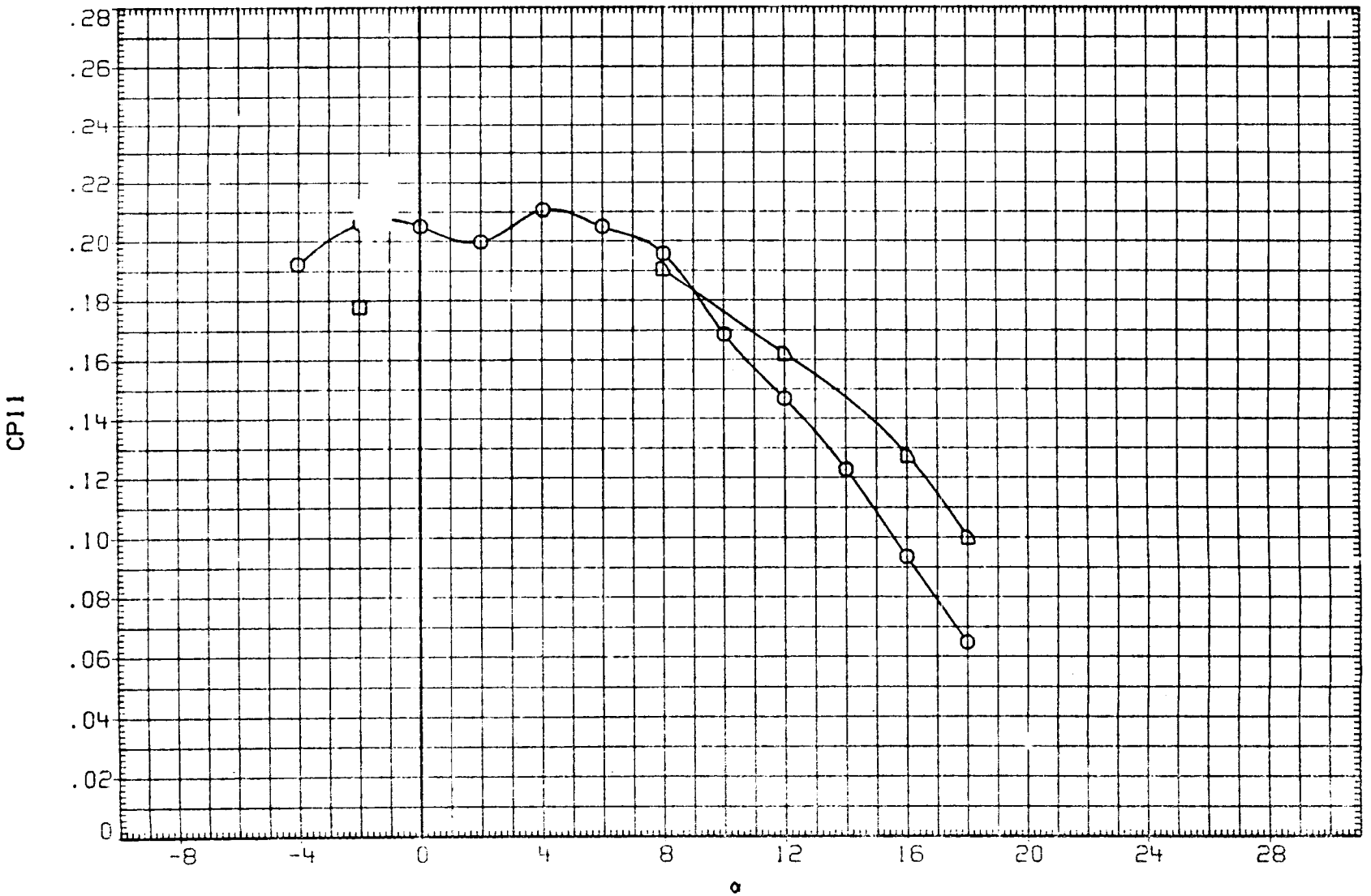


FIG. 84 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS
NOSE FLUSH PORT TAPS 11, 12, 13, 14

(F)MACH = .80 DATE 27 JUN 78 PAGE 276

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
EVR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
EVR014	□	0A232 AEDC 16T TF431 LA .2A RFN.1S	.000	.000
EVR017	◇	DATA NOT AVAILABLE	.000	.000
EVR018	△	DATA NOT AVAILABLE	.000	.000
EVR019	▷	DATA NOT AVAILABLE	.000	.000
EVR020	▱	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000

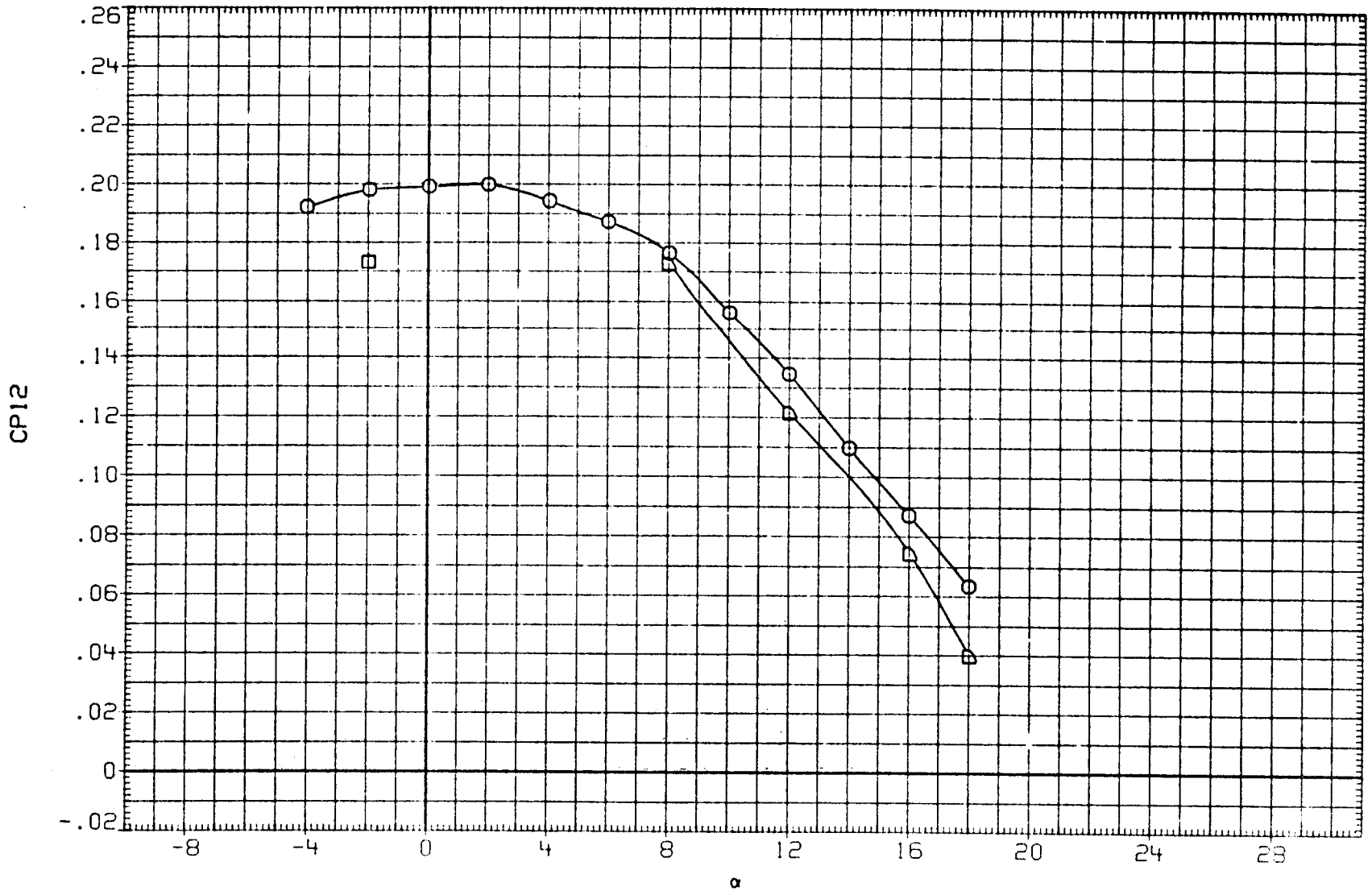


FIG. 84 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS
NOSE FLUSH PORT TAPS 11, 12, 13, 14

(F)MACH = .80 DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
EVR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
EVR014	□	0A232 AEDC 16T TF431 LA .2A RFN.1S	.000	.000
EVR017	◇	DATA NOT AVAILABLE	.000	.000
EVR018	◁	DATA NOT AVAILABLE	.000	.000
EVR019	◸	DATA NOT AVAILABLE	.000	.000
EVR020	▷	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000

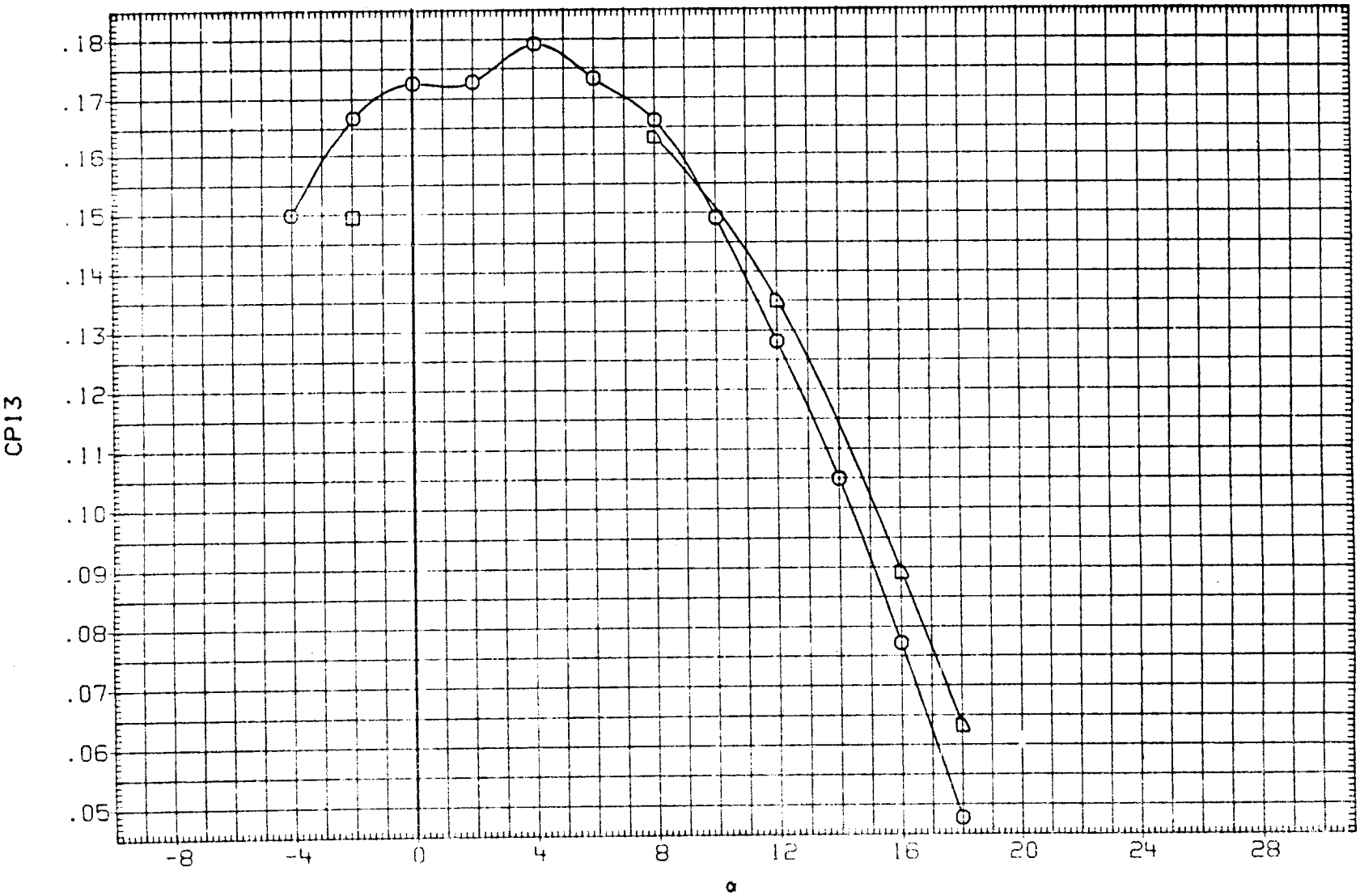


FIG. 84 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS
NOSE FLUSH PORT TAPS 11, 12, 13, 14

(F)MACH = .80 DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
EVR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
EVR014	□	0A232 AEDC 16T TF431 LA .2A RFN.1S	.000	.000
EVR017	◇	DATA NOT AVAILABLE	.000	.000
EVR018	△	DATA NOT AVAILABLE	.000	.000
EVR019	◺	DATA NOT AVAILABLE	.000	.000
EVR020	D	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000

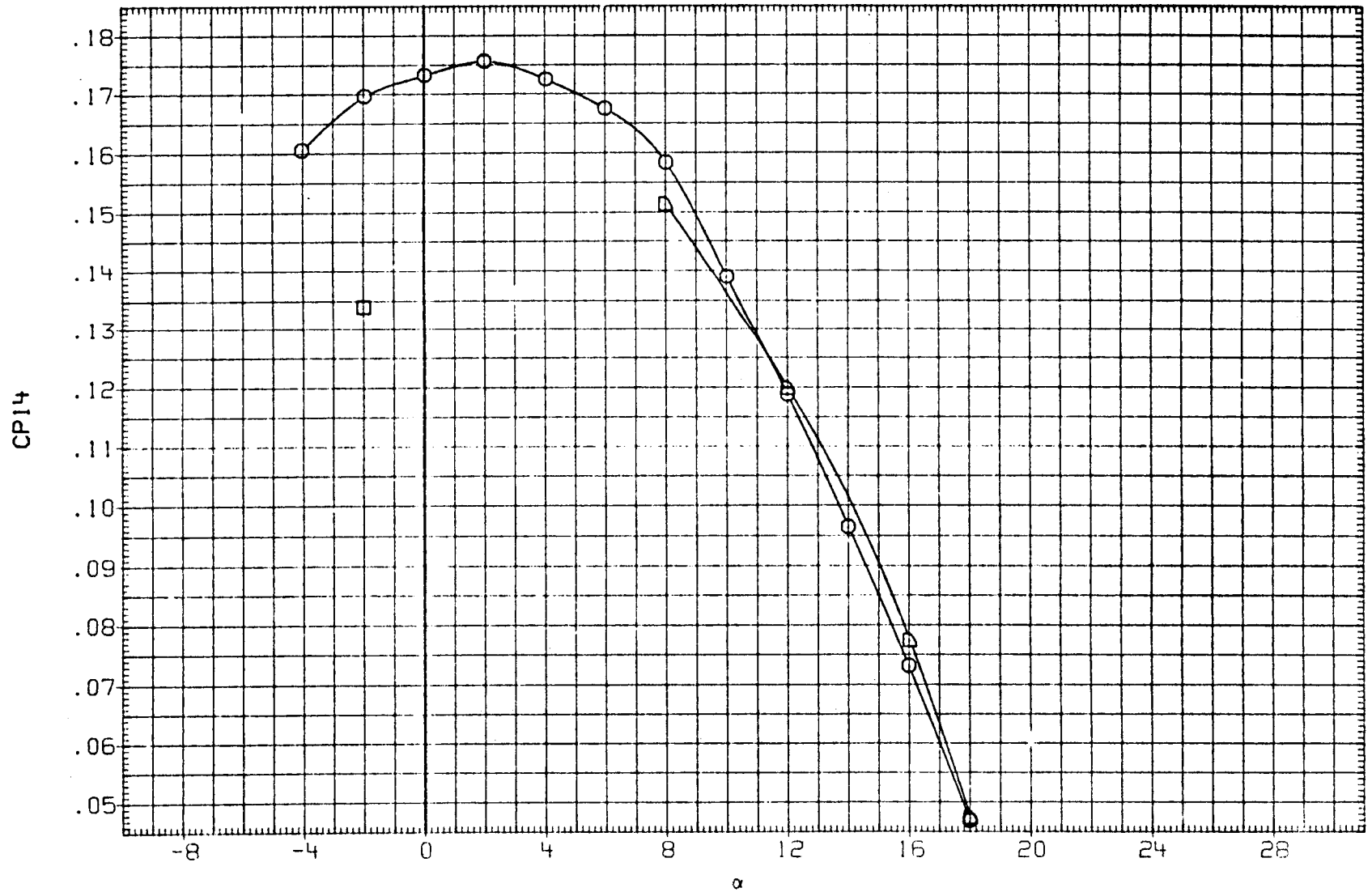


FIG. 84 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS
NOSE FLUSH PORT TAPS 11, 12, 13, 14

(F)MACH = .80 DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
FVR001	○	OA232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
FVR014	□	OA232 AEDC 16T TF431 LA .2A RFN.1S	.000	.000
FVR017	◇	OA232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
FVR018	◁	DATA NOT AVAILABLE	.000	.000
FVR019	▷	DATA NOT AVAILABLE	.000	.000
FVR020	D	DATA NOT AVAILABLE	.000	.000

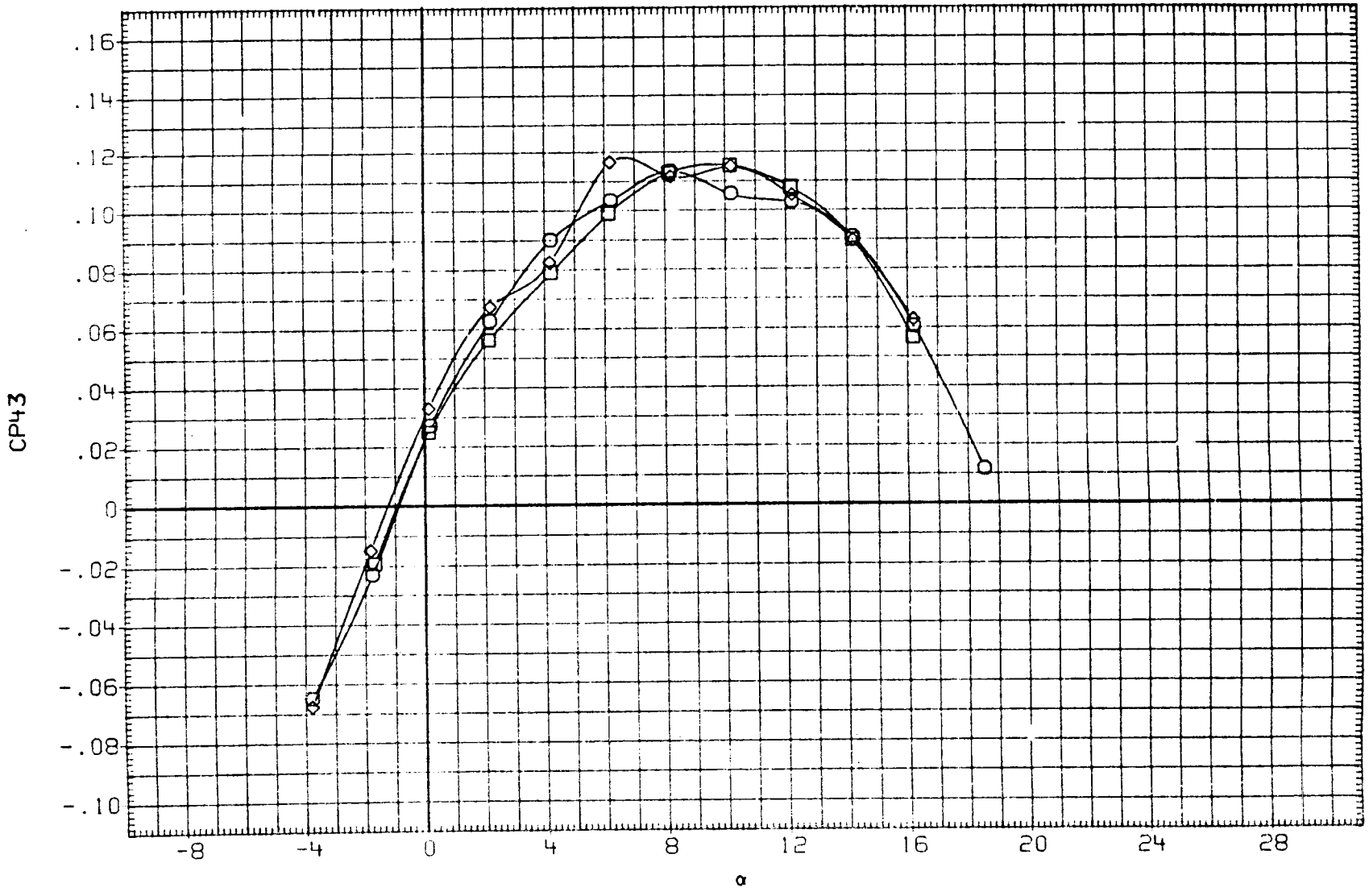


FIG. 85 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS NOSE FLUSH PORT TAPS 43 AND 44

(A) MACH = .20 DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
FVR001	○	0A232 AEDC 16T TF431 LF0.2P/S RF0.2A FTP	.000	.000
FVR014	□	0A232 AEDC 16T TF431 LA .2A RFN.1S	.000	.000
FVR017	◇	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
FVR018	△	DATA NOT AVAILABLE	.000	.000
FVR019	▽	DATA NOT AVAILABLE	.000	.000
FVR020	▱	DATA NOT AVAILABLE	.000	.000

FIG. 85 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS
NOSE FLUSH PORT TAPS 43 AND 44

(A) MACH = .20 DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
FVR001	○	OA232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
FVR014	□	DATA NOT AVAILABLE	.000	.000
FVR017	◇	OA232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
FVR018	△	DATA NOT AVAILABLE	.000	.000
FVR019	▽	DATA NOT AVAILABLE	.000	.000
FVR020	D	DATA NOT AVAILABLE	.000	.000

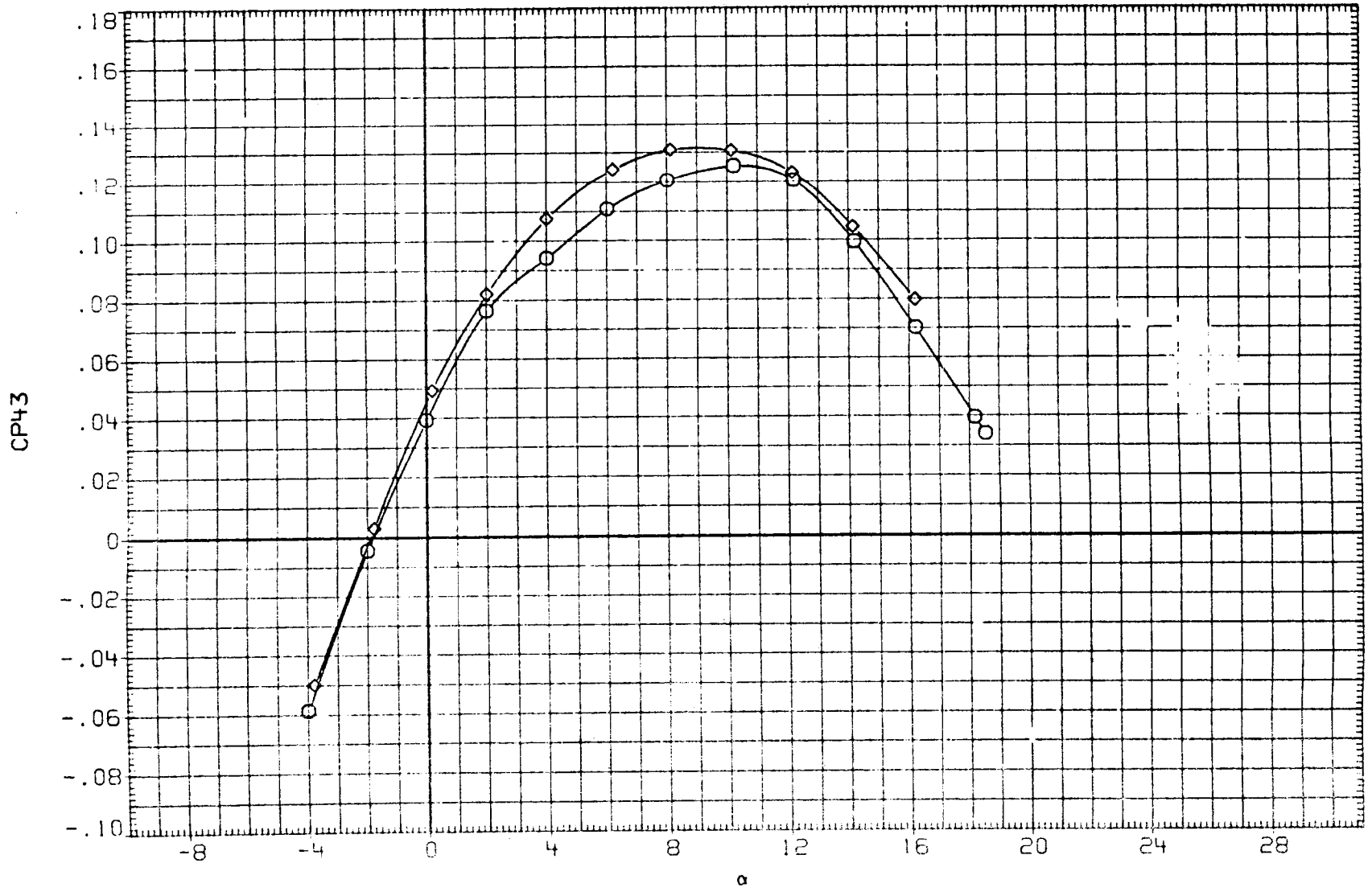


FIG. 85 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS
NOSE FLUSH PORT TAPS 43 AND 44

(B)MACH = .25 DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
FVR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
FVR014	□	DATA NOT AVAILABLE	.000	.000
FVR017	◇	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
FVR018	△	DATA NOT AVAILABLE	.000	.000
FVR019	◁	DATA NOT AVAILABLE	.000	.000
FVR020	▷	DATA NOT AVAILABLE	.000	.000

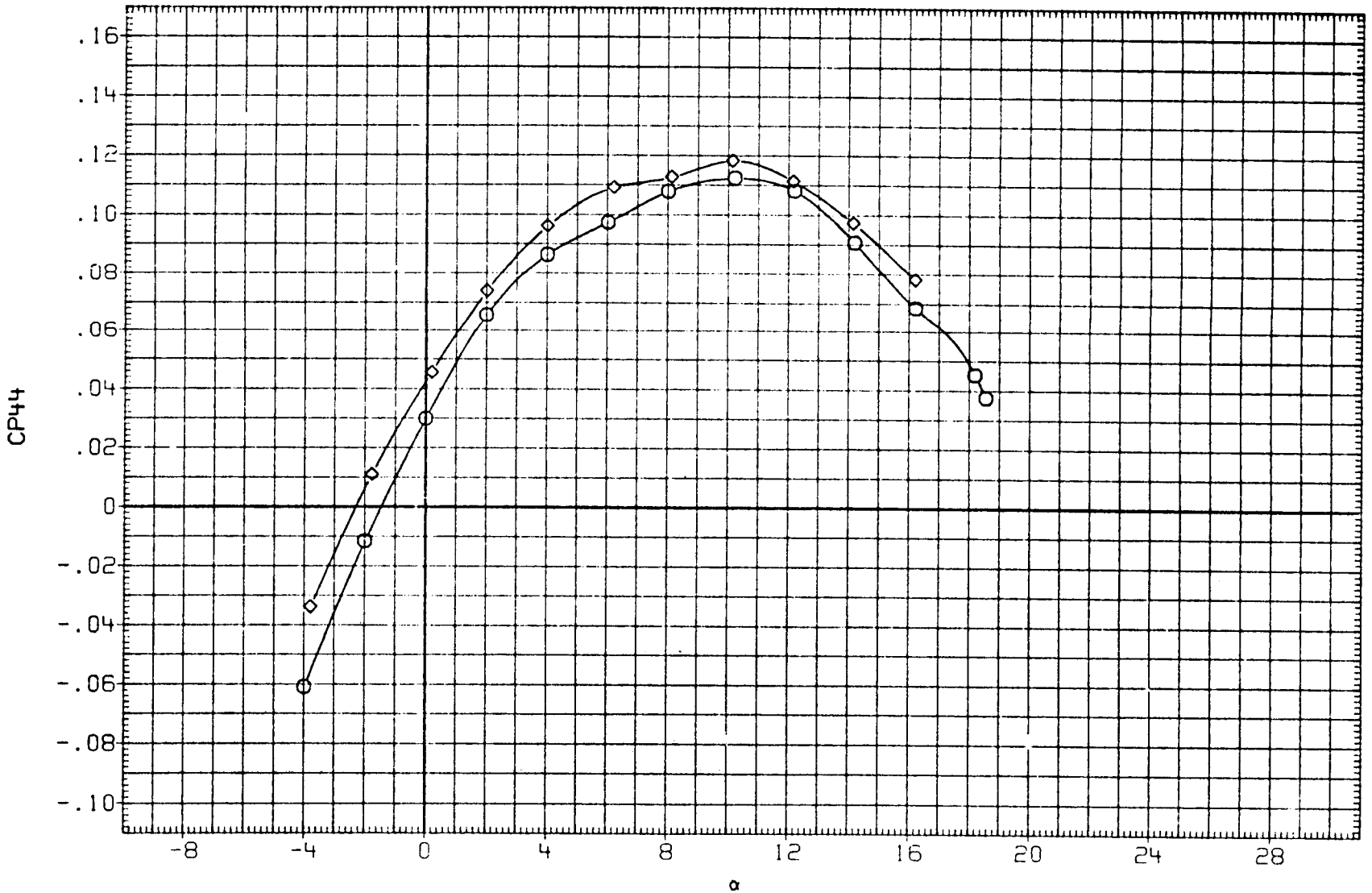


FIG. 85 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS
NOSE FLUSH PORT TAPS 43 AND 44

(B)MACH = .25 DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
FVR001	○	OA232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
FVR014	□	OA232 AEDC 16T TF431 LA .2A RFN.1S	.000	.000
FVR017	◇	DATA NOT AVAILABLE	.000	.000
FVR018	△	OA232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
FVR019	⊿	DATA NOT AVAILABLE	.000	.000
FVR020	▱	DATA NOT AVAILABLE	.000	.000

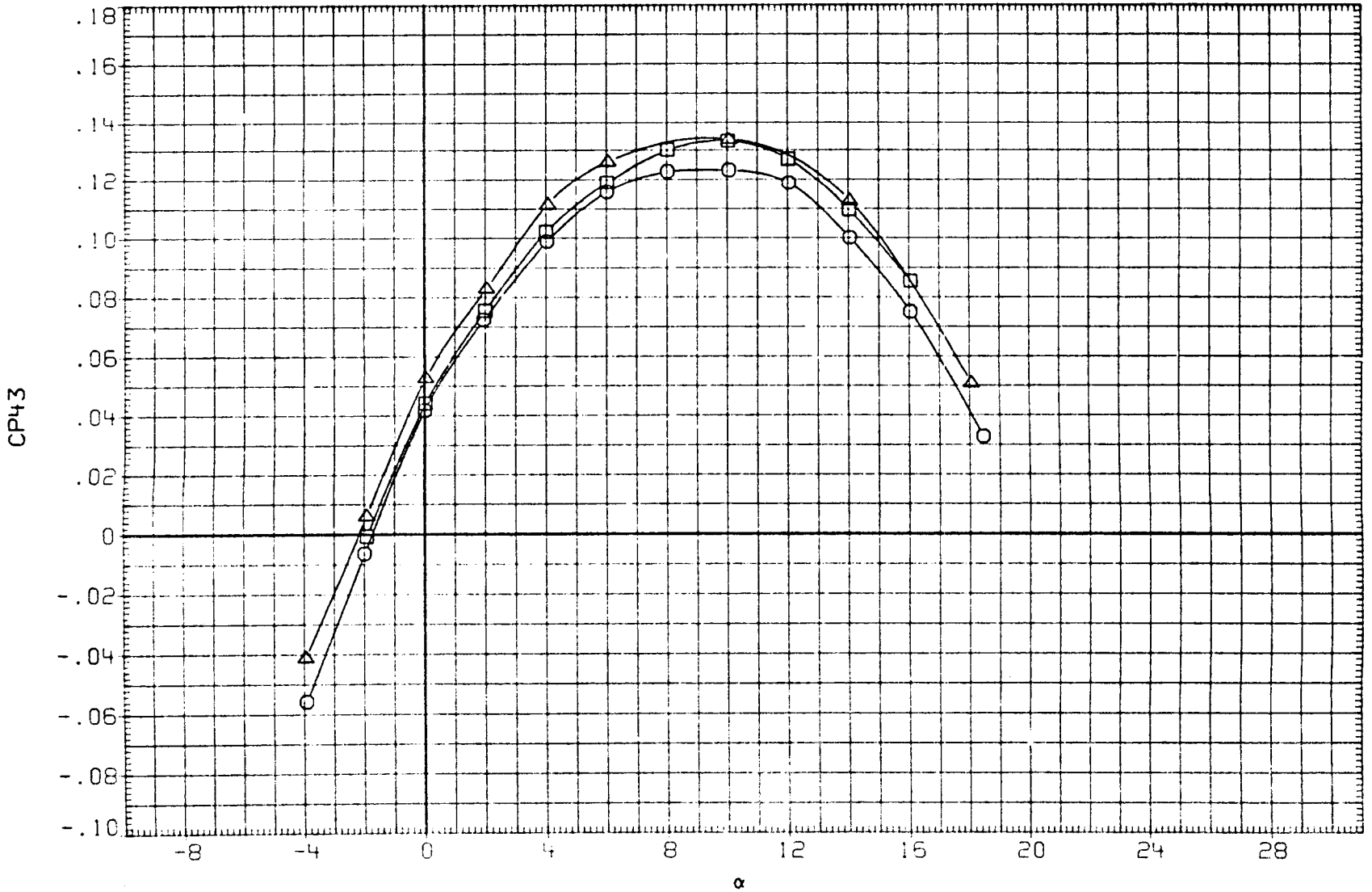


FIG. 85 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS NOSE FLUSH PORT TAPS 43 AND 44

(C)MACH = .40 DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
FVR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
FVR014	□	0A232 AEDC 16T TF431 LA .2A RFN.1S	.000	.000
FVR017	◇	DATA NOT AVAILABLE	.000	.000
FVR018	△	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
FVR019	⊿	DATA NOT AVAILABLE	.000	.000
FVR020	D	DATA NOT AVAILABLE	.000	.000

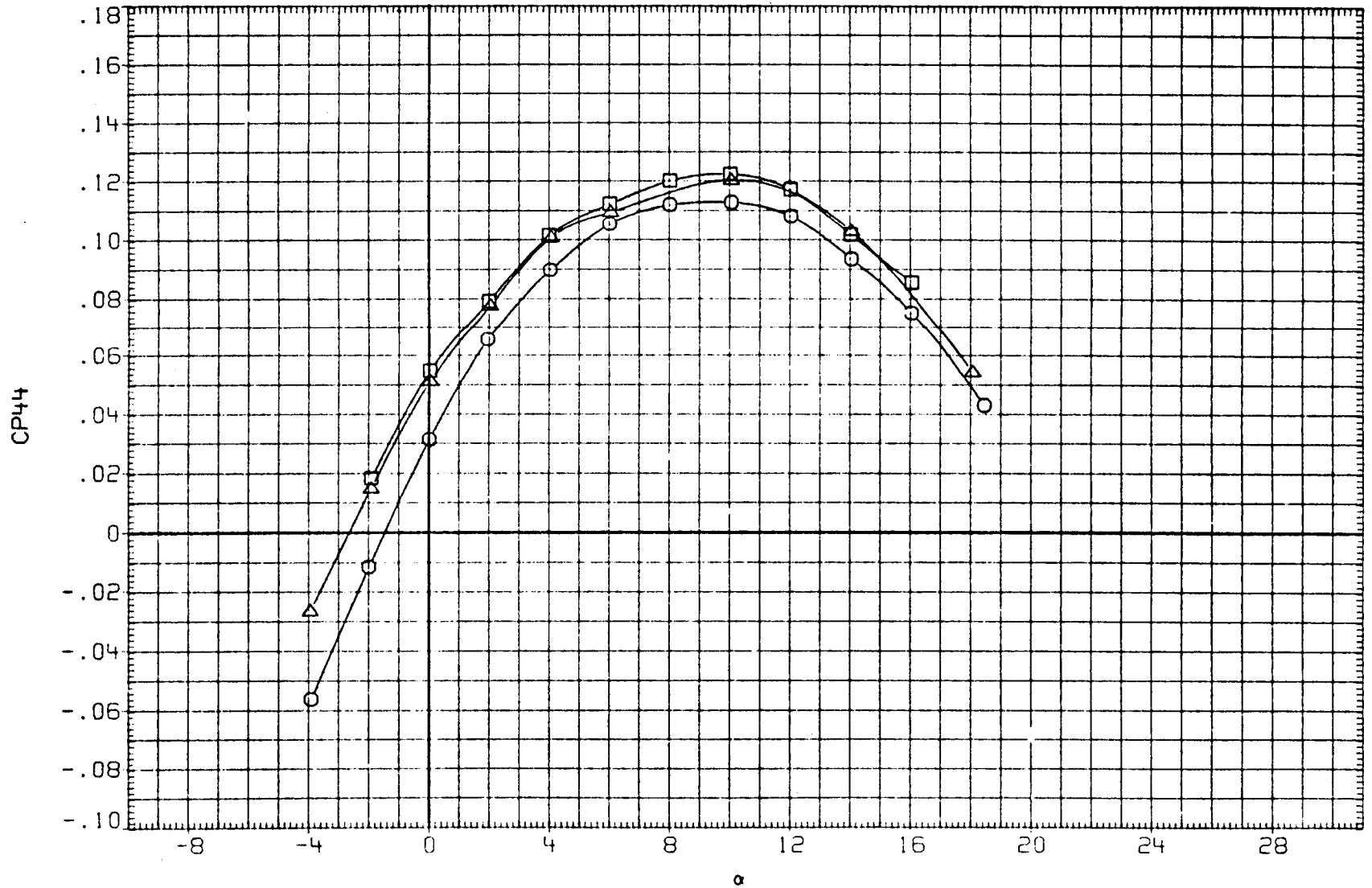


FIG. 85 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS NOSE FLUSH PORT TAPS 43 AND 44

(C)MACH = .40 DATE 27 JUN 78 PAGE 285

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
FVR001	○	0A232	AEDC 16T TF431	LFO.2P/S	RFO.2A	FTP	.000	.000
FVR014	□	0A232	AEDC 16T TF431	LA .2A	RFN.1S		.000	.000
FVR017	◇	DATA NOT AVAILABLE					.000	.000
FVR018	△	DATA NOT AVAILABLE					.000	.000
FVR019	◁	0A232	AEDC 16T TF431	LA .2A	RFN.1S	FTP	.000	.000
FVR020	▷	DATA NOT AVAILABLE					.000	.000

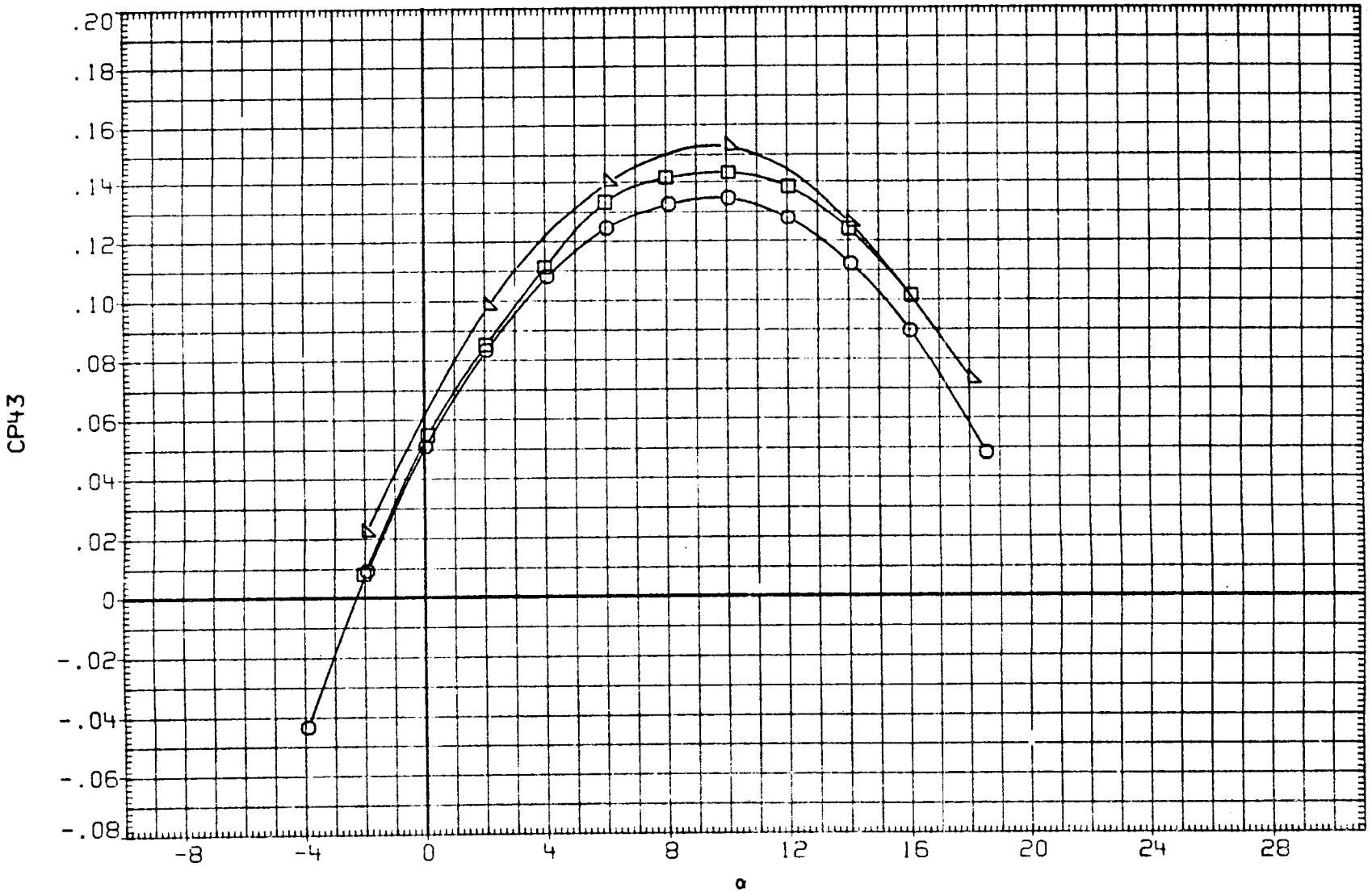


FIG. 85 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS NOSE FLUSH PORT TAPS 43 AND 44

(D)MACH = .60

DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
FVR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
FVR014	□	0A232 AEDC 16T TF431 LA .2A RFN.1S	.000	.000
FVR017	◇	DATA NOT AVAILABLE	.000	.000
FVR018	◁	DATA NOT AVAILABLE	.000	.000
FVR019	◺	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
FVR020	▱	DATA NOT AVAILABLE	.000	.000

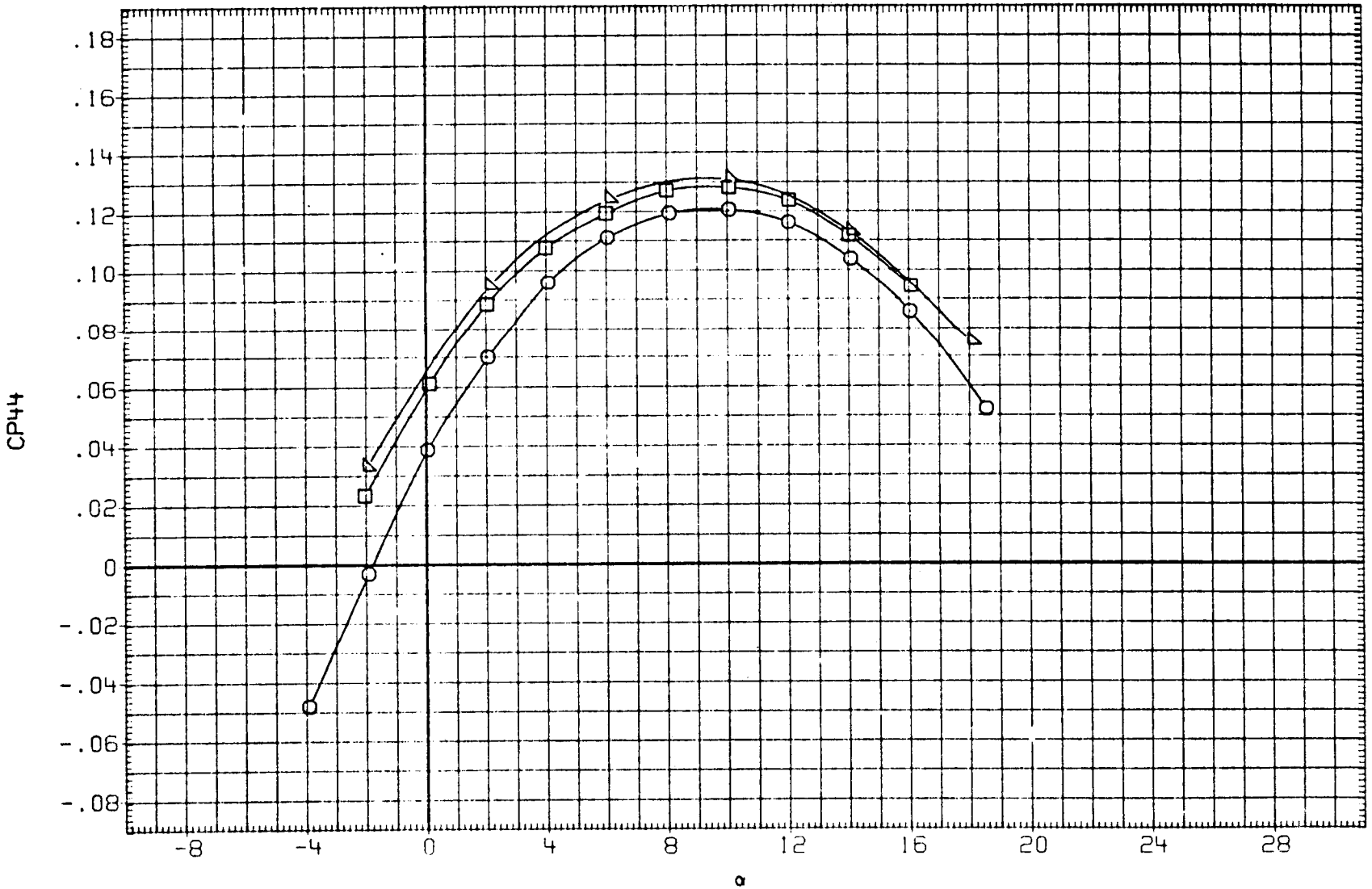


FIG. 85 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS NOSE FLUSH PORT TAPS 43 AND 44

(D)MACH = .60 DATE 27 JUN 78 PAGE 287

DATA SET	SYMBOL	CONFIGURATION					BETA	PHI
FVR001	○	0A232 AEDC 16T TF431	LFO.2F/S	RFO.2A	FTP		.000	.000
FVR014	□	0A232 AEDC 16T TF431	LA .2A	RFN.1S			.000	.000
FVR017	◇	DATA NOT AVAILABLE					.000	.000
FVR018	△	DATA NOT AVAILABLE					.000	.000
FVR019	▽	0A232 AEDC 16T TF431	LA .2A	RFN.1S	FTP		.000	.000
FVR020	D	DATA NOT AVAILABLE					.000	.000

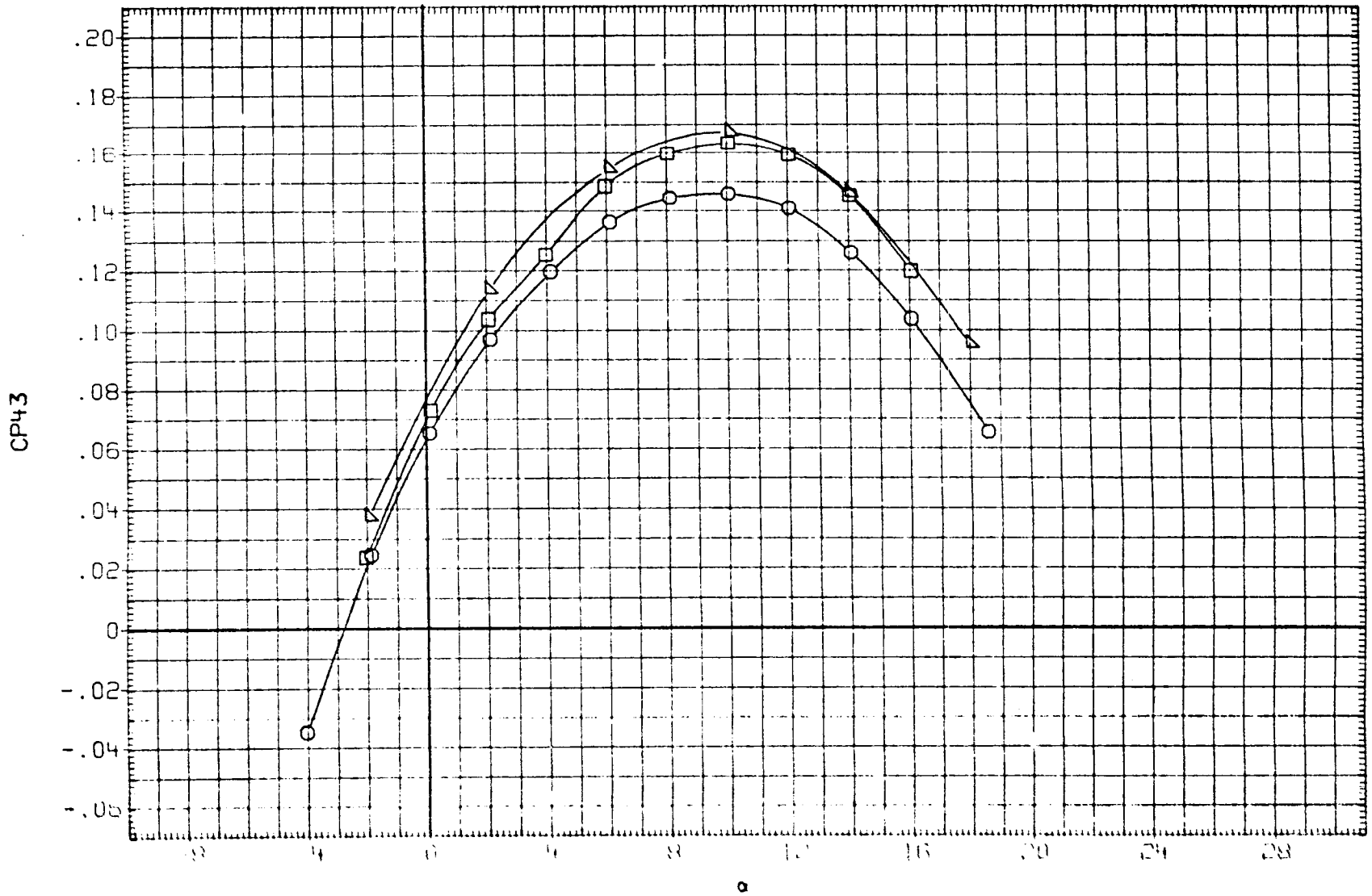


FIG. 85 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS NOSE FLUSH PORT TAPS 43 AND 44

(E)MACH = .70 DATE 27 JUN 68

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
FVR001	○	OA232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
FVR014	□	OA232 AEDC 16T TF431 LA .2A RFN.1S	.000	.000
FVR017	◇	DATA NOT AVAILABLE	.000	.000
FVR018	△	DATA NOT AVAILABLE	.000	.000
FVR019	◁	OA232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000
FVR020	⬠	DATA NOT AVAILABLE	.000	.000

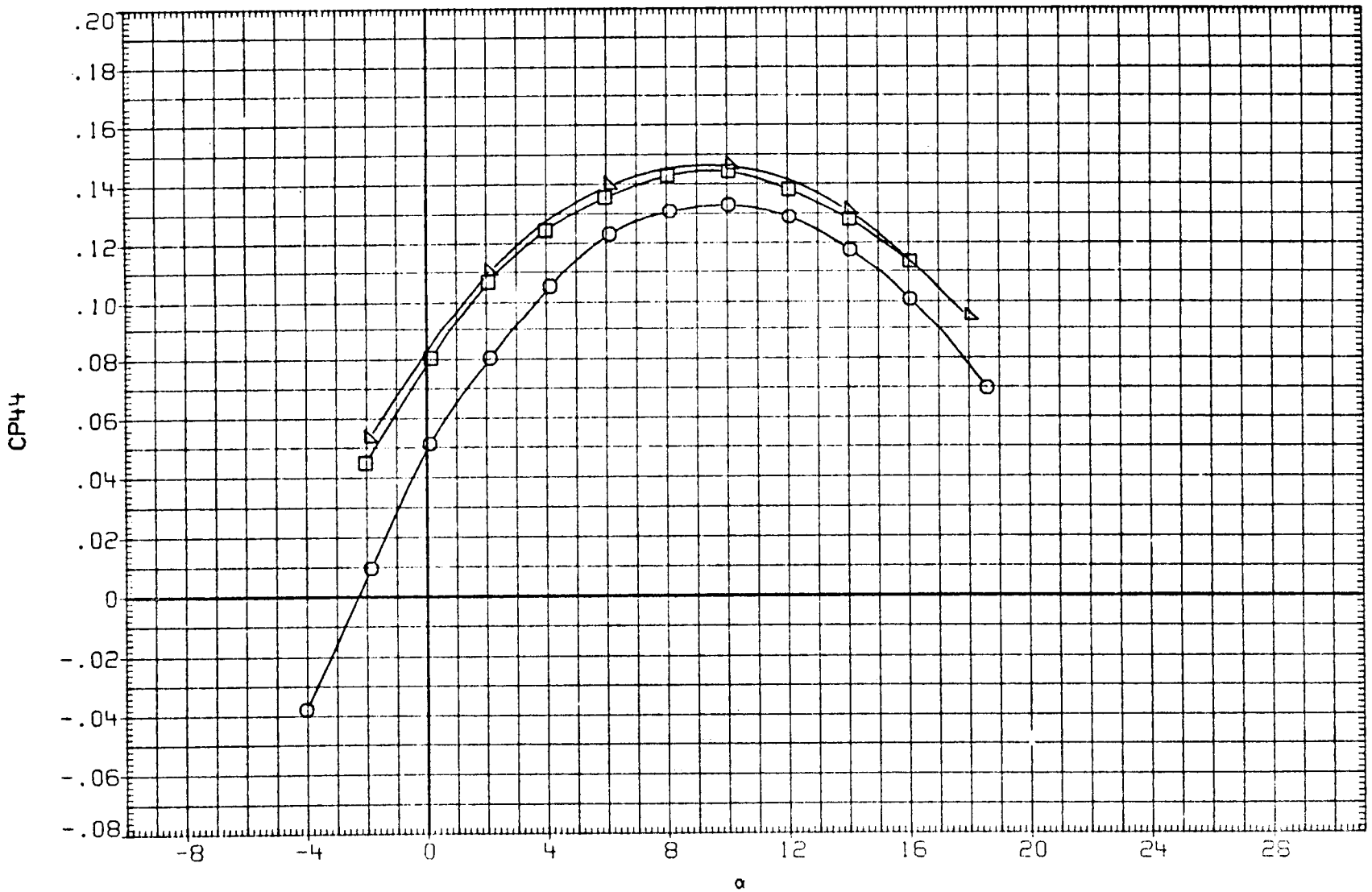


FIG. 85 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS
NOSE FLUSH PORT TAPS 43 AND 44

(E)MACH = .70 DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
FVR001	○	0A232 AEDC 16T TF431 LF0.2P/S RF0.2A FTP	.000	.000
FVR014	□	0A232 AEDC 16T TF431 LA .2A RFN.1S	.000	.000
FVR017	◇	DATA NOT AVAILABLE	.000	.000
FVR018	△	DATA NOT AVAILABLE	.000	.000
FVR019	▽	DATA NOT AVAILABLE	.000	.000
FVR020	▱	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000

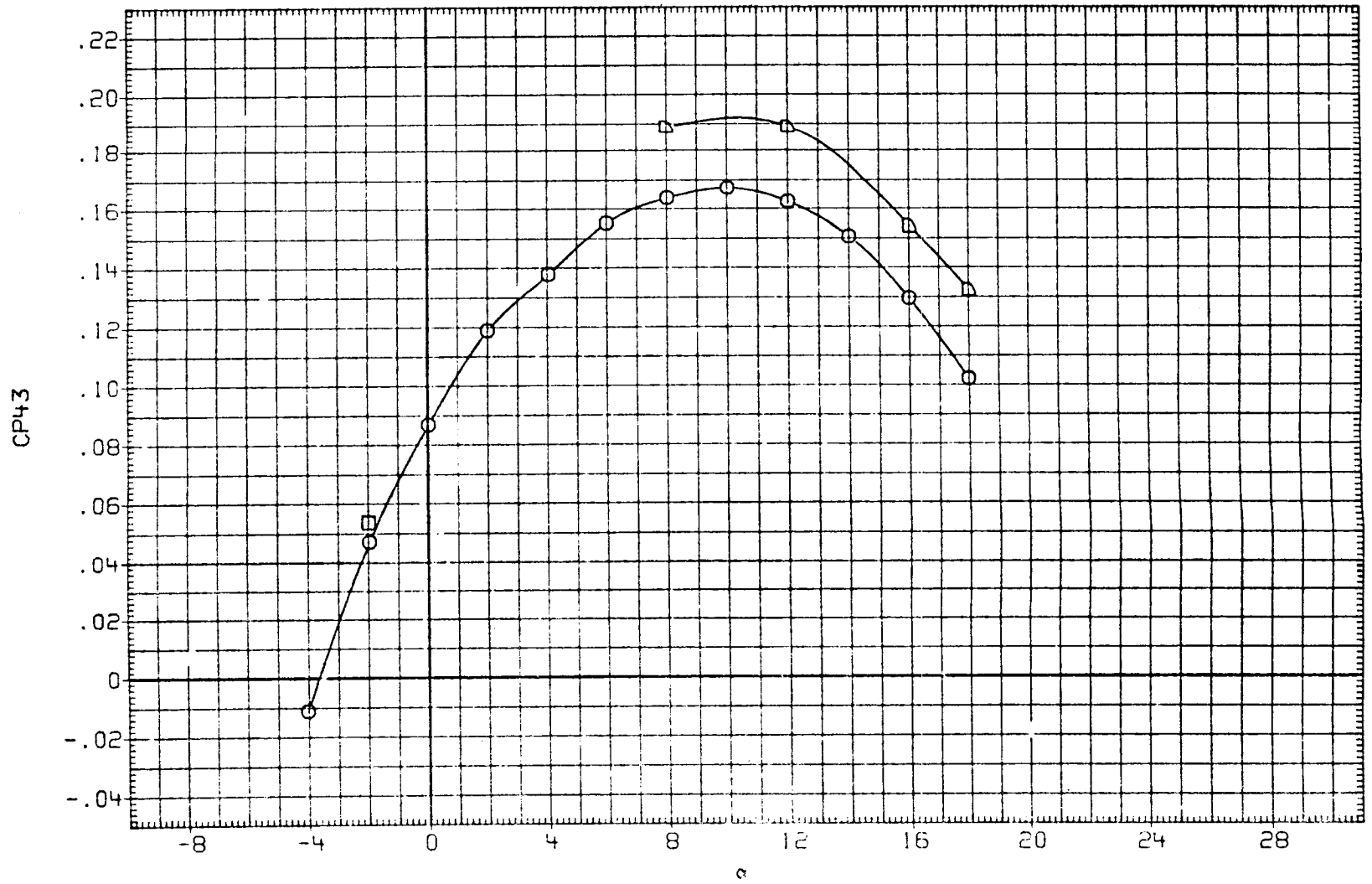


FIG. 85 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS NOSE FLUSH PORT TAPS 43 AND 44

(F)MACH = .80 DATE 27 JUN 78 PAGE 290

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
FVR001	○	0A232 AEDC 16T TF431 LF0.2P/S RF0.2A FTP	.000	.000
FVR014	□	0A232 AEDC 16T TF431 LA .2A RFN.1S	.000	.000
FVR017	◇	DATA NOT AVAILABLE	.000	.000
FVR018	△	DATA NOT AVAILABLE	.000	.000
FVR019	▷	DATA NOT AVAILABLE	.000	.000
FVR020	D	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000

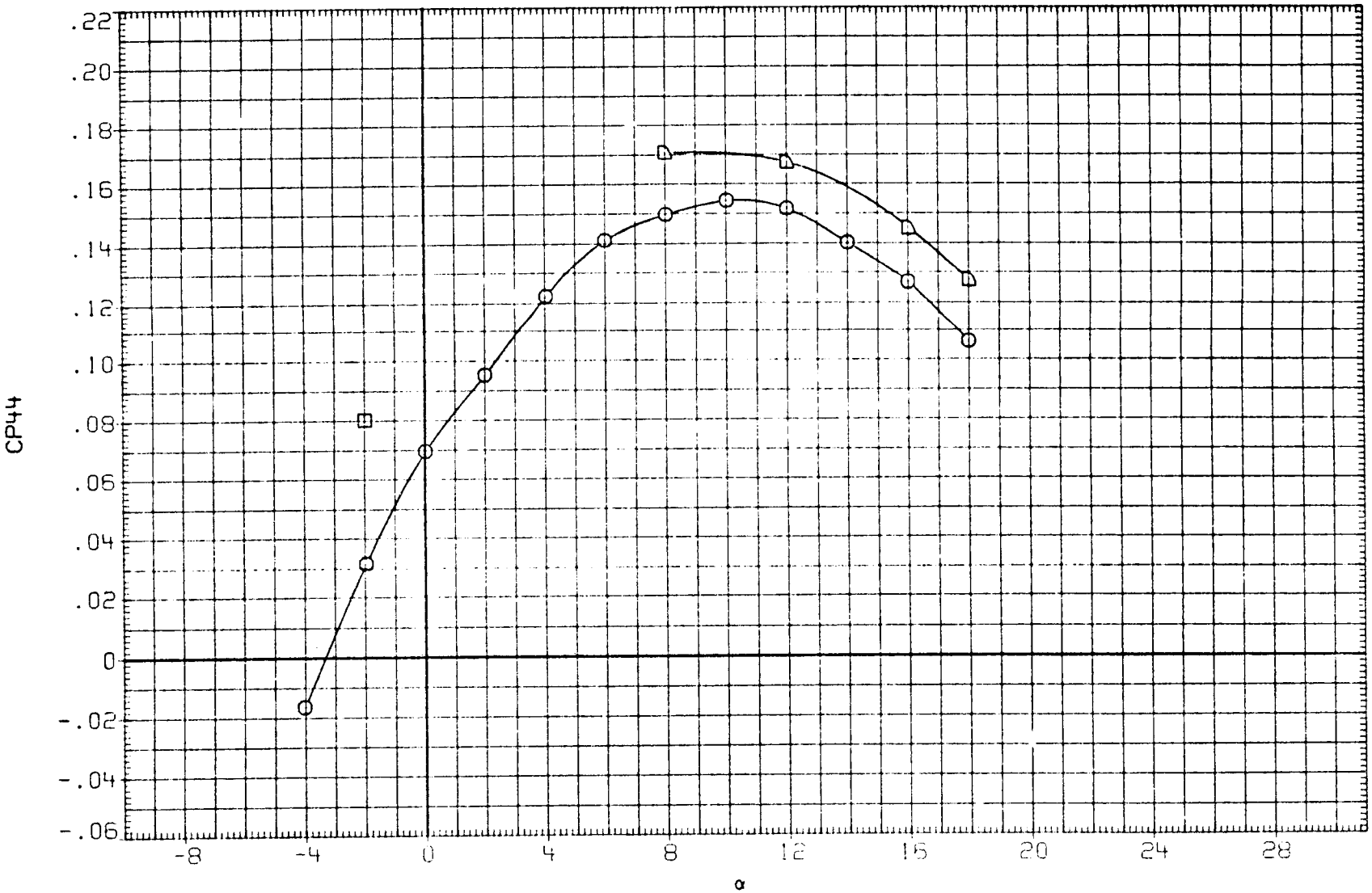


FIG. 85 EFFECT OF THE S-BAND ANTENNA FAIRING ON STATIC PRESSURE COEFFICIENTS
NOSE FLUSH PORT TAPS 43 AND 44

(F)MACH = .80 DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
BVR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
BVR002	□	DATA NOT AVAILABLE	.000	180.000
BVR003	◇	DATA NOT AVAILABLE	.000	.000
BVRA17	△	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000

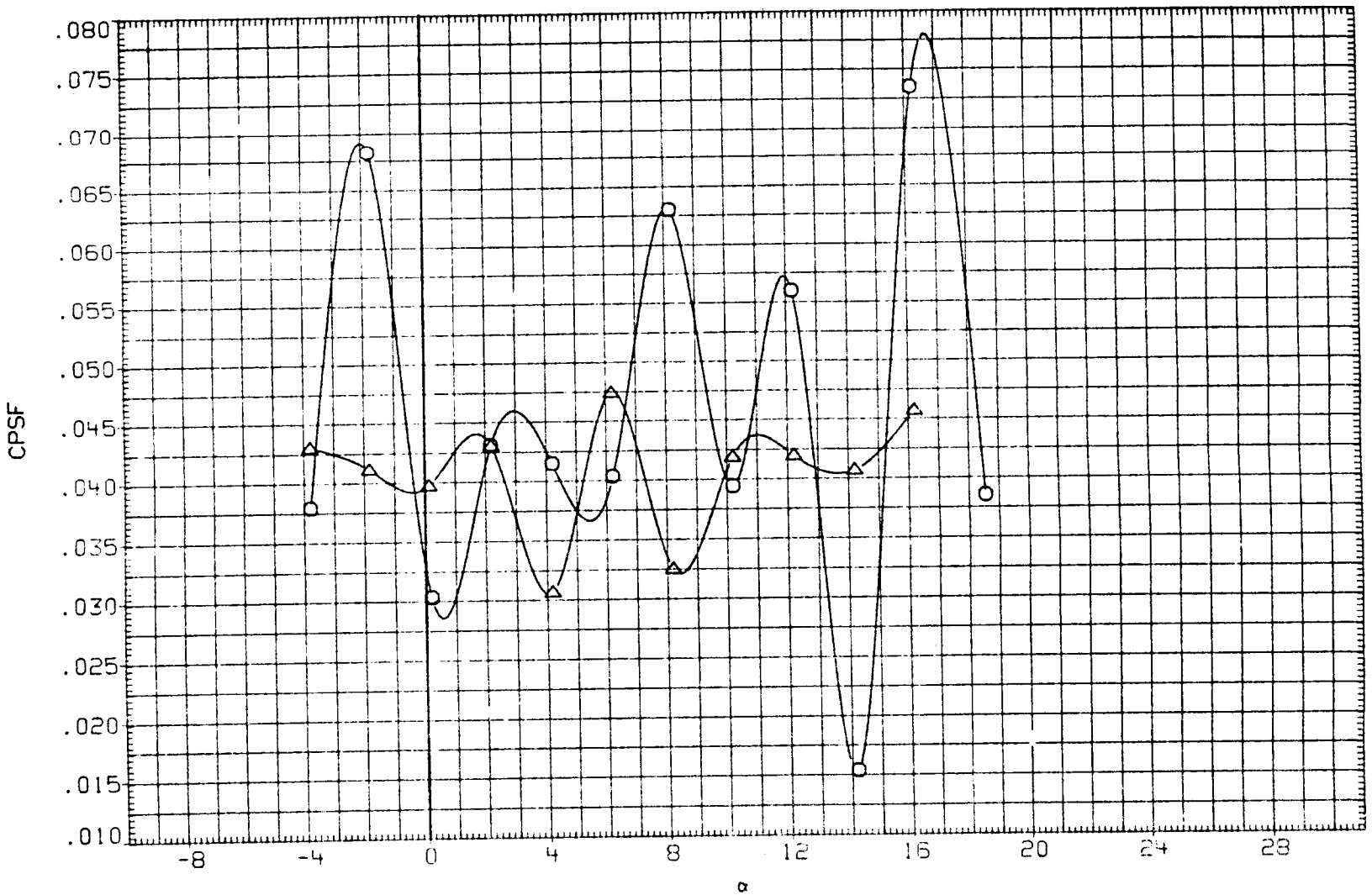


FIG. 86 0A232 FLIGHT TEST PROBE STATIC PRESSURE CHARACTERISTICS

(A) MACH = .20 DATE 27 JUN 78 PAGE 292

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
BVR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
BVR002	□	DATA NOT AVAILABLE	.000	180.000
BVR003	◇	DATA NOT AVAILABLE	.000	.000
BVRA17	△	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000

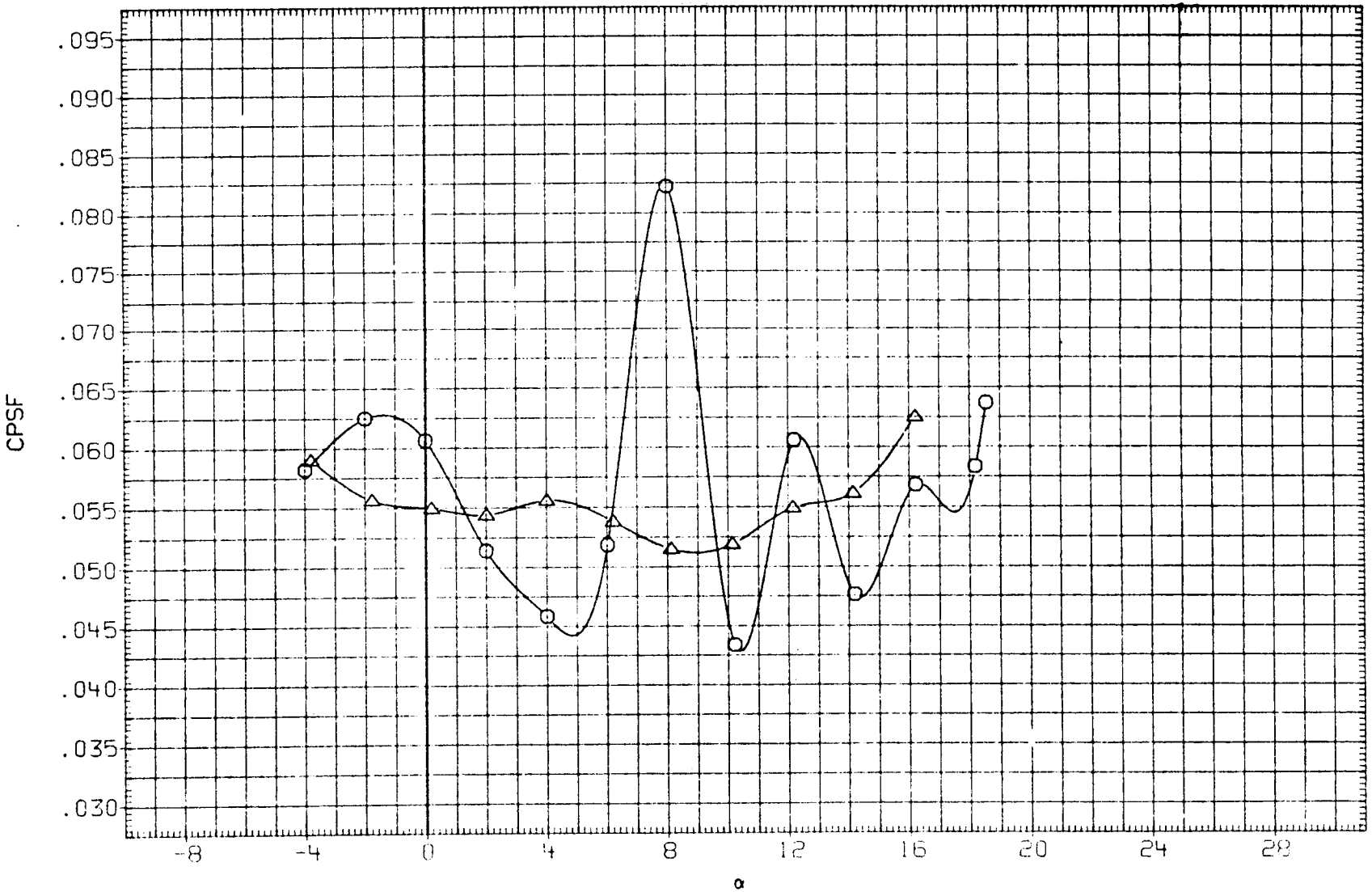


FIG. 86 0A232 FLIGHT TEST PROBE STATIC PRESSURE CHARACTERISTICS

(B)MACH = .25 DATE 27 JUN 78 PAGE 293

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
BVR001	○	OA232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
BVP002	□	DATA NOT AVAILABLE	.000	180.000
BVR003	◇	OA232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	000
BVRA17	△	OA232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000

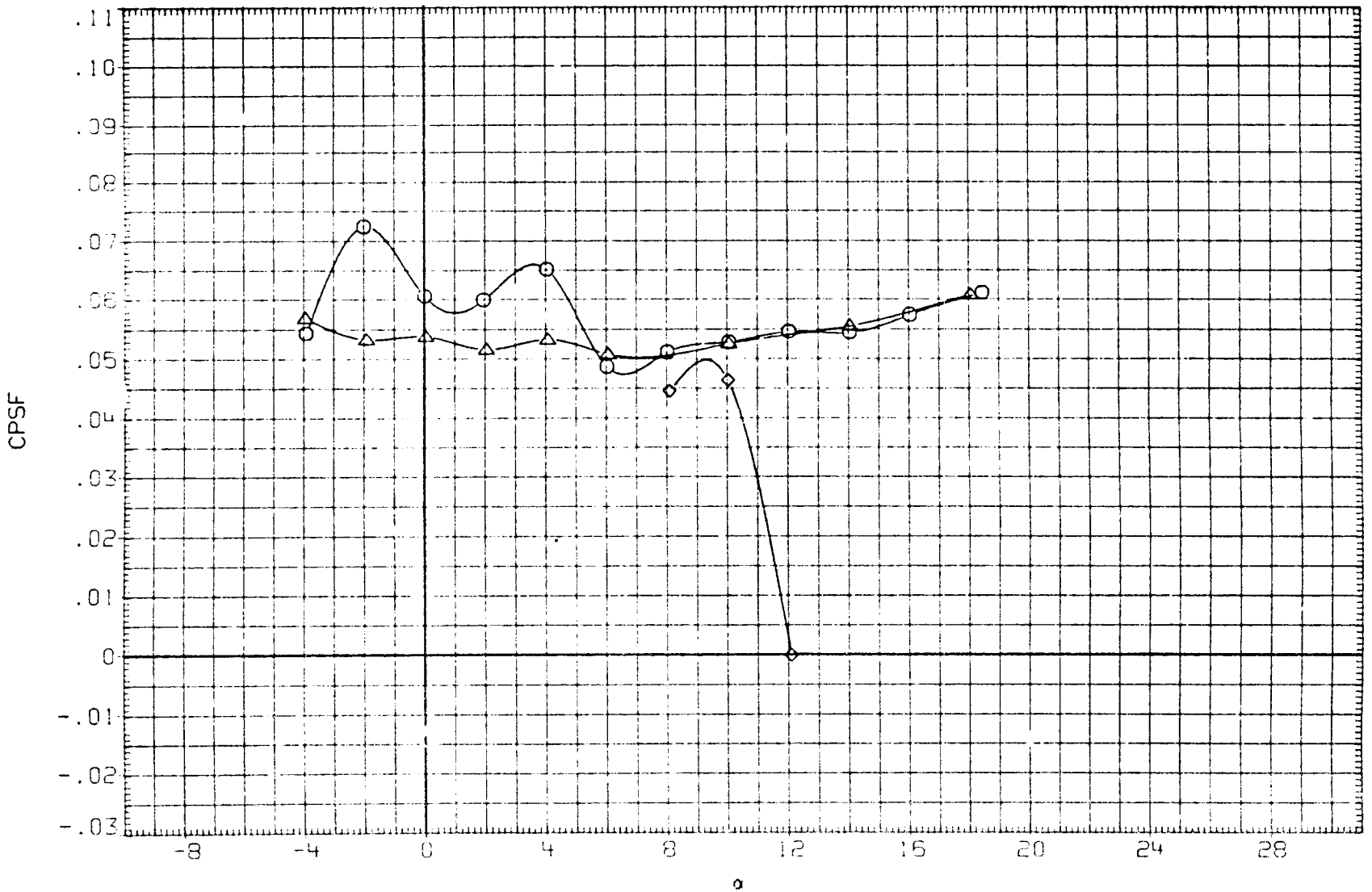


FIG. 86 OA232 FLIGHT TEST PROBE STATIC PRESSURE CHARACTERISTICS

(C)MACH = .40 DATE 27 JUN 78 PAGE 294

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
BVR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
BVR002	□	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP INV	.000	180.000
BVR003	◇	DATA NOT AVAILABLE	.000	.000
BVRA17	△	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000

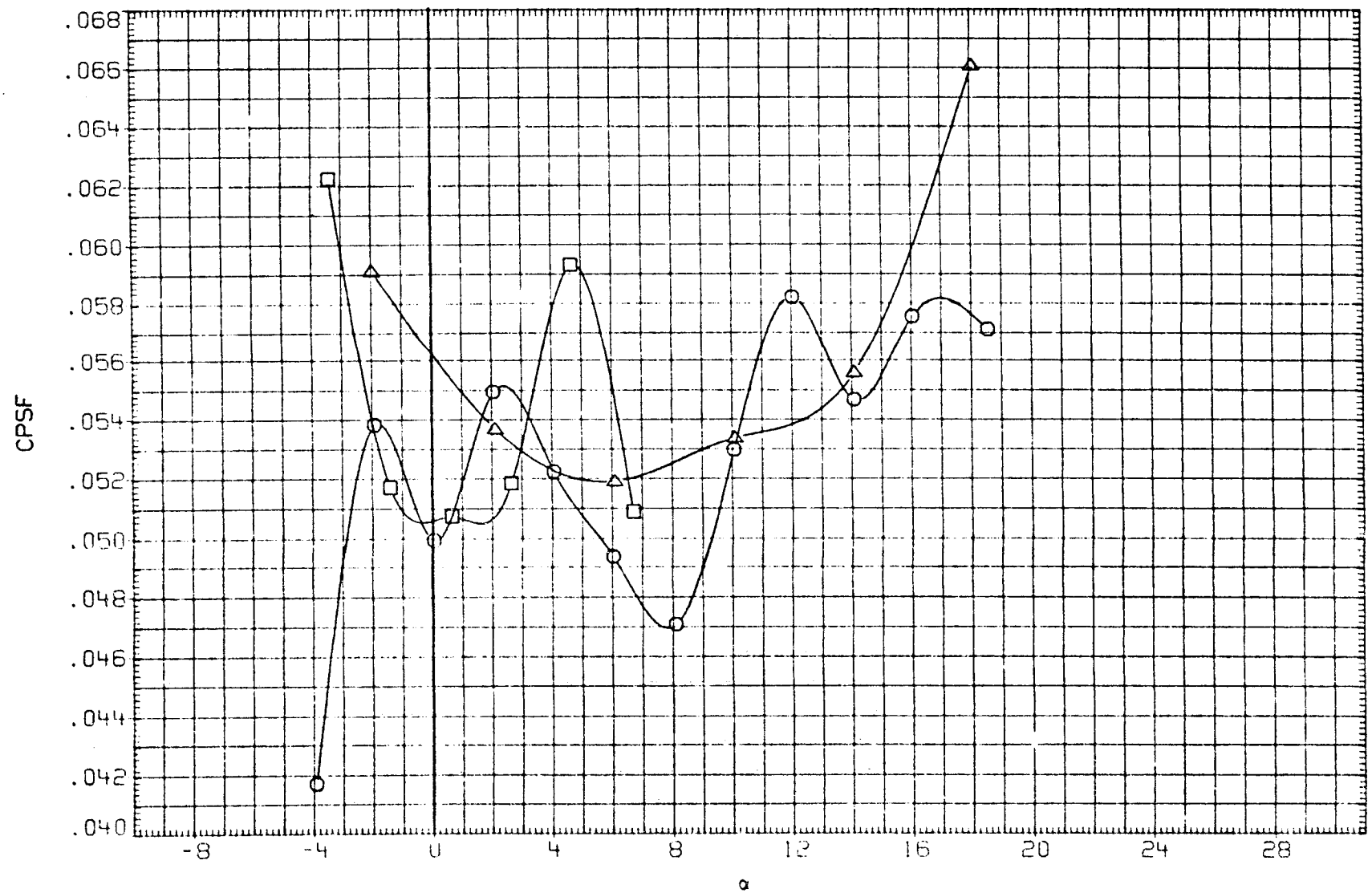


FIG. 86 0A232 FLIGHT TEST PROBE STATIC PRESSURE CHARACTERISTICS

(D)MACH = .60 DATE 27 JUN 78 PAGE 295

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
BVR001	○	OA232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
BVR002	□	DATA NOT AVAILABLE	.000	180.000
BVR003	◇	DATA NOT AVAILABLE	.000	.000
BVRA17	△	OA232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000

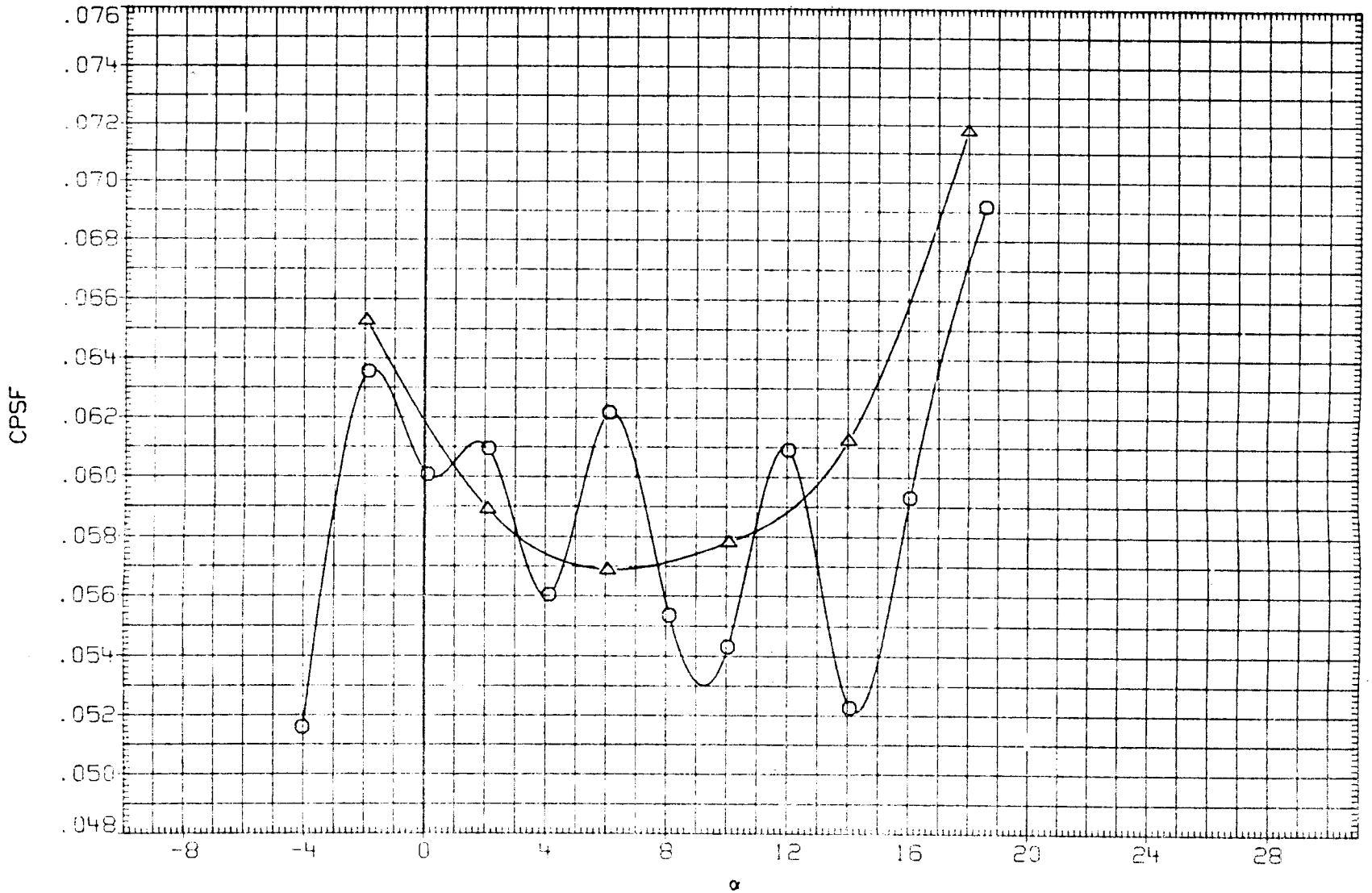


FIG. 86 OA232 FLIGHT TEST PROBE STATIC PRESSURE CHARACTERISTICS

(E)MACH = .70 DATE 27 JUN 78 PAGE 296

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
BVR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
BVR002	□	DATA NOT AVAILABLE	.000	180.000
BVR003	◇	DATA NOT AVAILABLE	.000	.000
BVRA17	△	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000

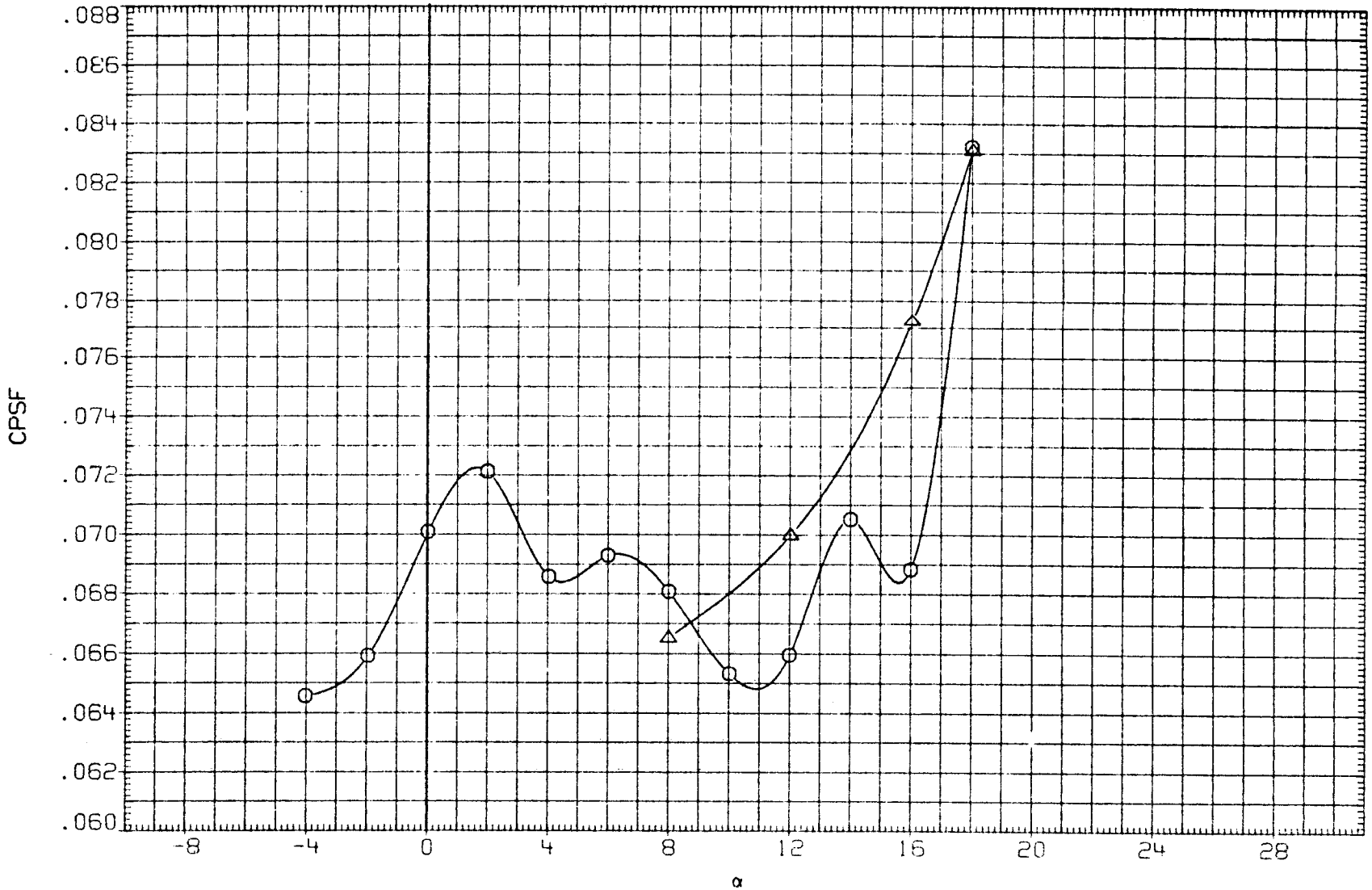


FIG. 86 0A232 FLIGHT TEST PROBE STATIC PRESSURE CHARACTERISTICS

(F)MACH = .80 DATE 27 JUN 78 PAGE 297

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
BVR001	○	0A232 AEDC 16T TF431 LF0.2P/S RF0.2A FTP	.000	.000
BVR002	□	DATA NOT AVAILABLE	.000	180.000
BVR003	◇	DATA NOT AVAILABLE	.000	.000
BVRA17	△	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000

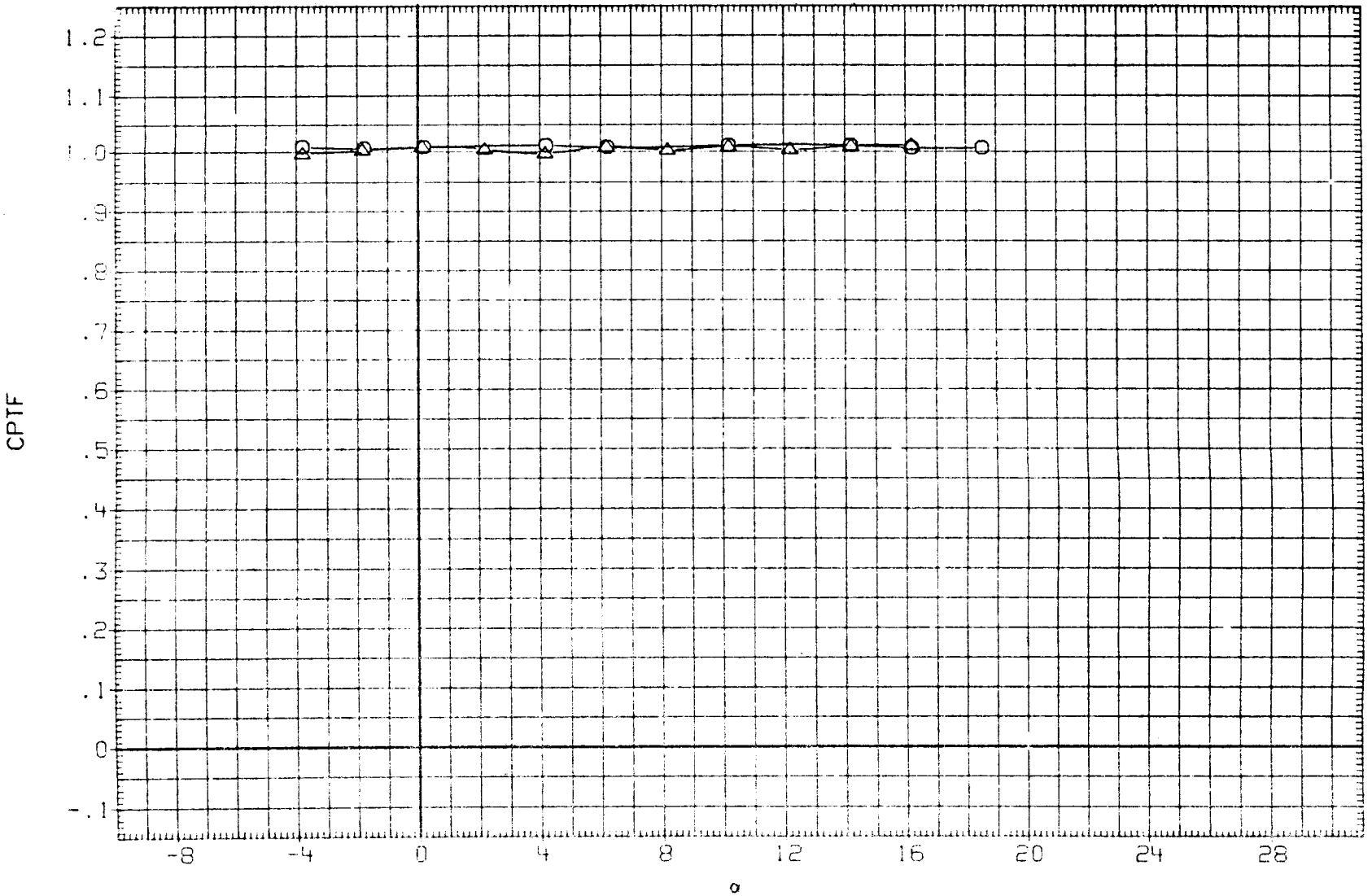


FIG. 87 0A232 FLIGHT TEST PROBE TOTAL PRESSURE CHARACTERISTICS

(A)MACH = .20 DATE 27 JUN 78 PAGE 298

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
BVR001	○	OA232 AEDC 16T TF431 LF0.2P/S RF0.2A FTP	.000	.000
BVR002	□	DATA NOT AVAILABLE	.000	180.000
BVR003	◇	DATA NOT AVAILABLE	.000	.000
BVRA17	△	OA232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000

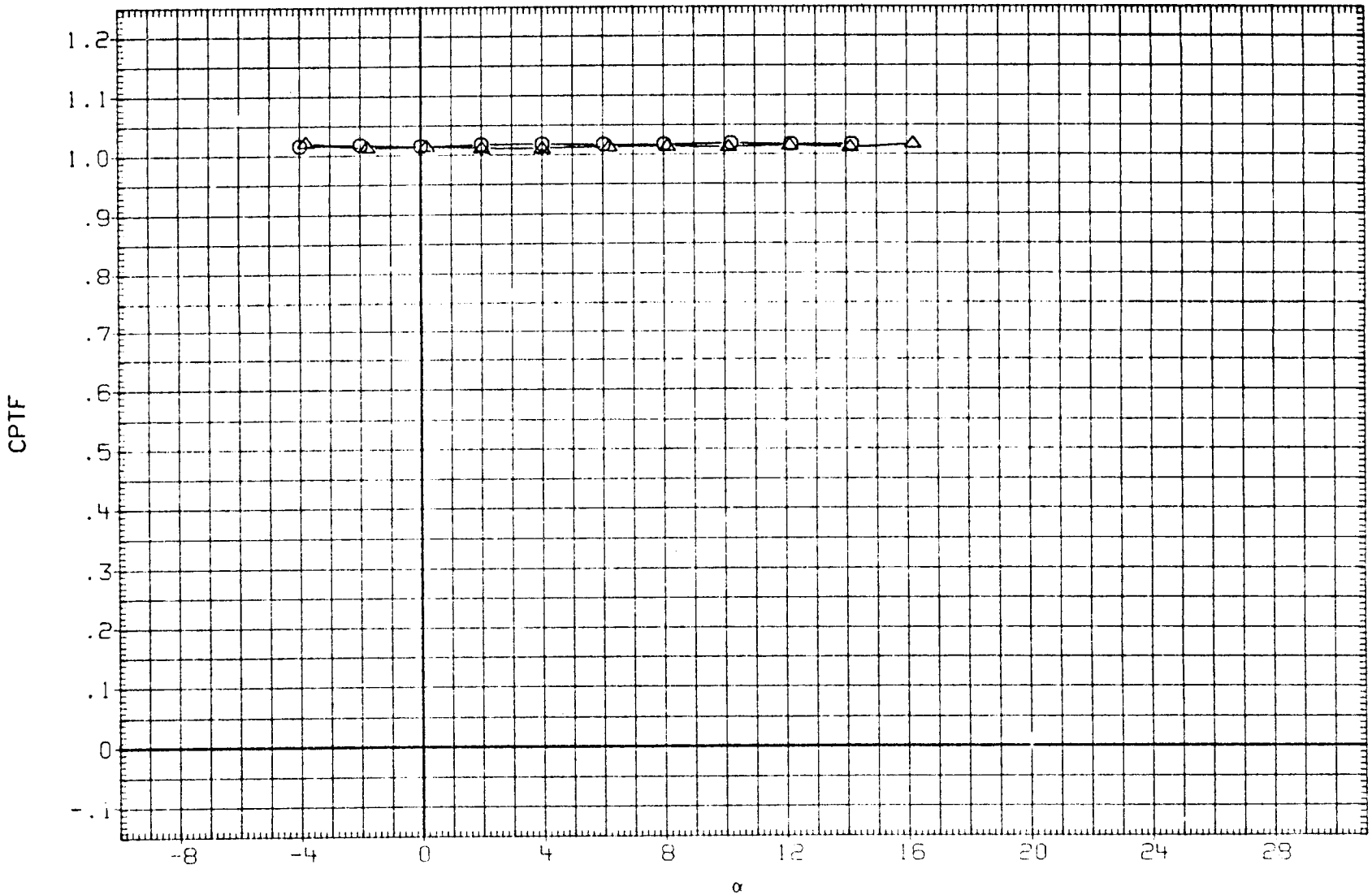


FIG. 87 OA232 FLIGHT TEST PROBE TOTAL PRESSURE CHARACTERISTICS

(B)MACH = .25 DATE 27 JUN 78 PAGE 293

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
BVR001	○	OA232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
BVR002	□	DATA NOT AVAILABLE	.000	180.000
BVR003	◇	OA232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
BVRA17	△	OA232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000

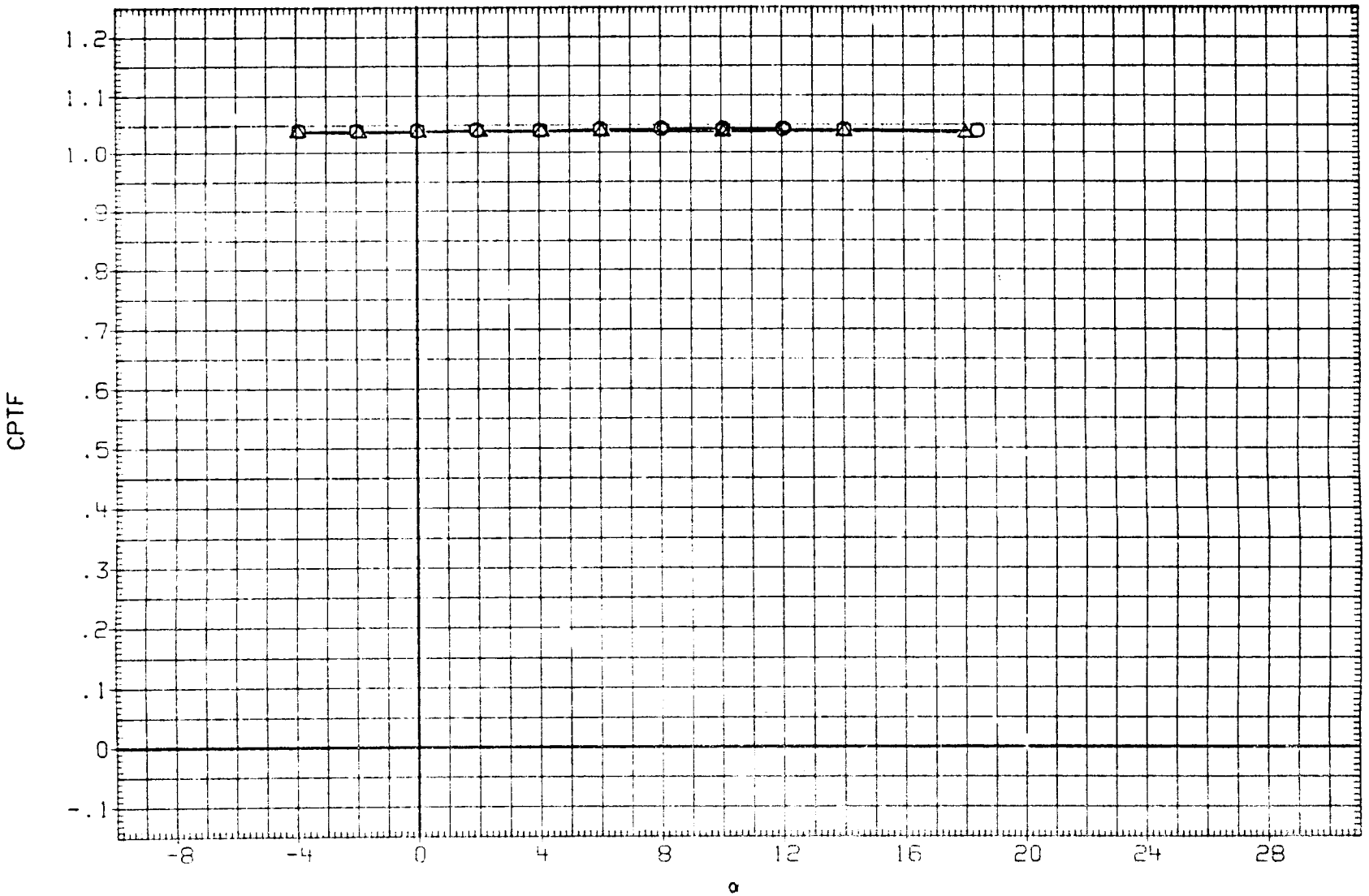


FIG. 87 OA232 FLIGHT TEST PROBE TOTAL PRESSURE CHARACTERISTICS

(C)MACH = .40 DATE 27 JUN 78 PAGE 300

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
BVR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
BVR002	□	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP INV	.000	180.000
BVR003	◇	DATA NOT AVAILABLE	.000	.000
BVRA17	△	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000

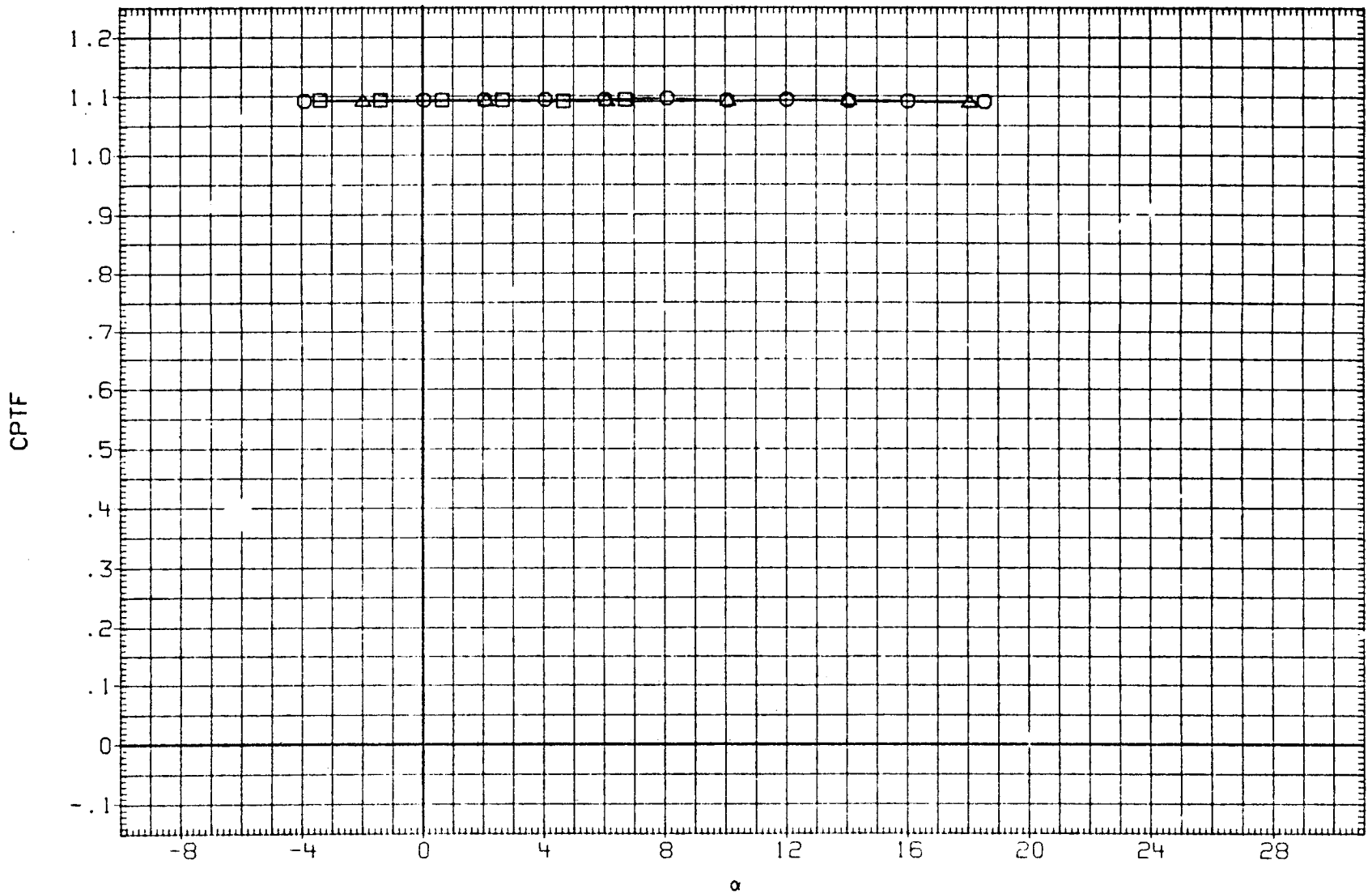


FIG. 87 0A232 FLIGHT TEST PROBE TOTAL PRESSURE CHARACTERISTICS

(D)MACH = .60 DATE 27 JUN 78 PAGE 301

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
BVR001	○	OA232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
BVR002	□	DATA NOT AVAILABLE	.000	180.000
BVR003	◇	DATA NOT AVAILABLE	.000	.000
BVRA17	△	OA232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000

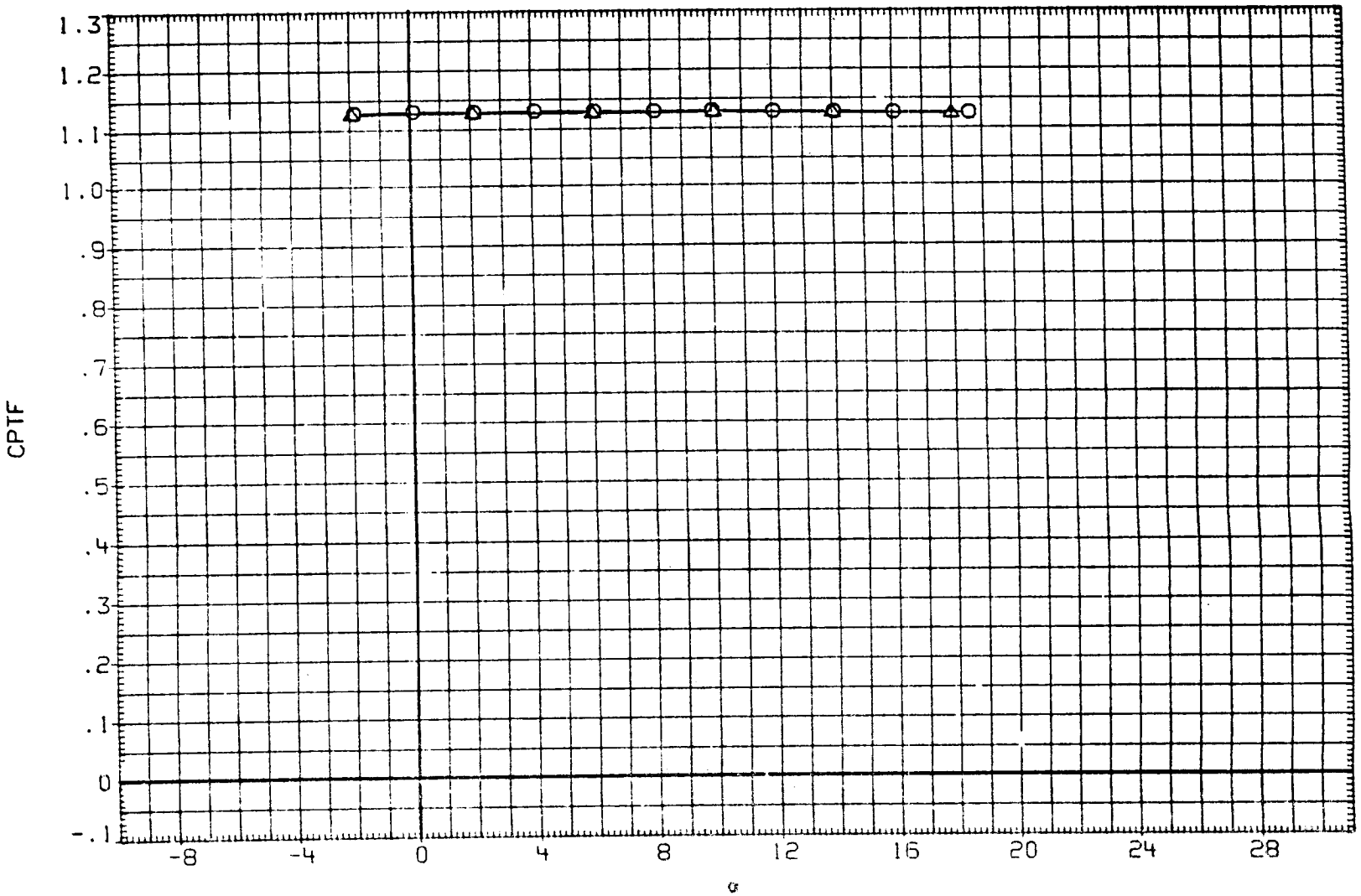


FIG. 87 OA232 FLIGHT TEST PROBE TOTAL PRESSURE CHARACTERISTICS

(E)MACH = .70 DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
BVR001	○	0A232 AEDC 16T TF431 LF0.2P/S RF0.2A FTP	.000	.000
BVR002	□	DATA NOT AVAILABLE	.000	180.000
BVR003	◇	DATA NOT AVAILABLE	.000	.000
BVRA17	△	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000

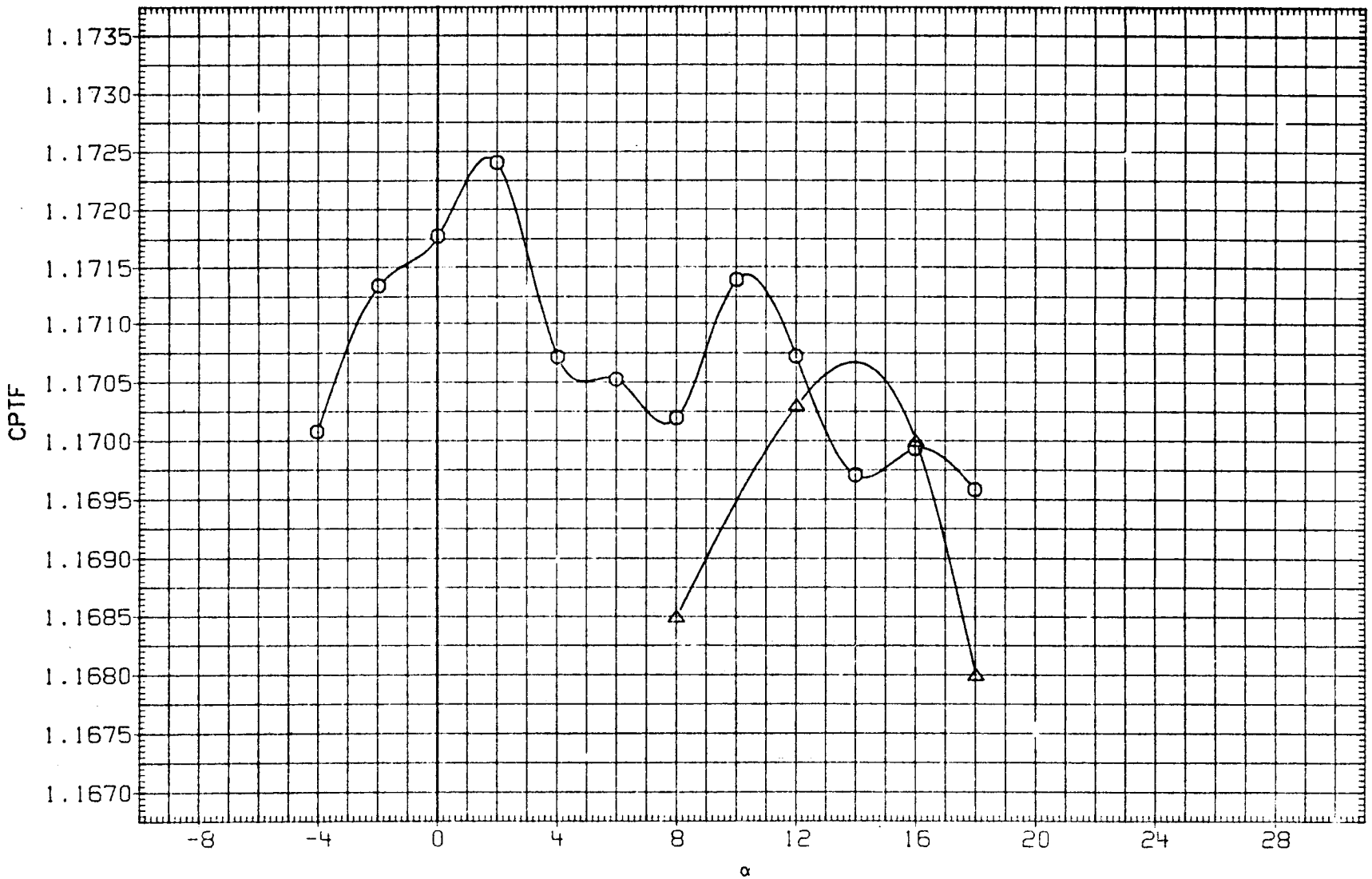


FIG. 87 0A232 FLIGHT TEST PROBE TOTAL PRESSURE CHARACTERISTICS

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
BVR001	○	0A232 AEDC 16T TF431 LF0.2P/S RF0.2A FTP	.000	.000
BVR002	□	DATA NOT AVAILABLE	.000	180.000
BVR003	◇	DATA NOT AVAILABLE	.000	.000
BVRA17	△	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000

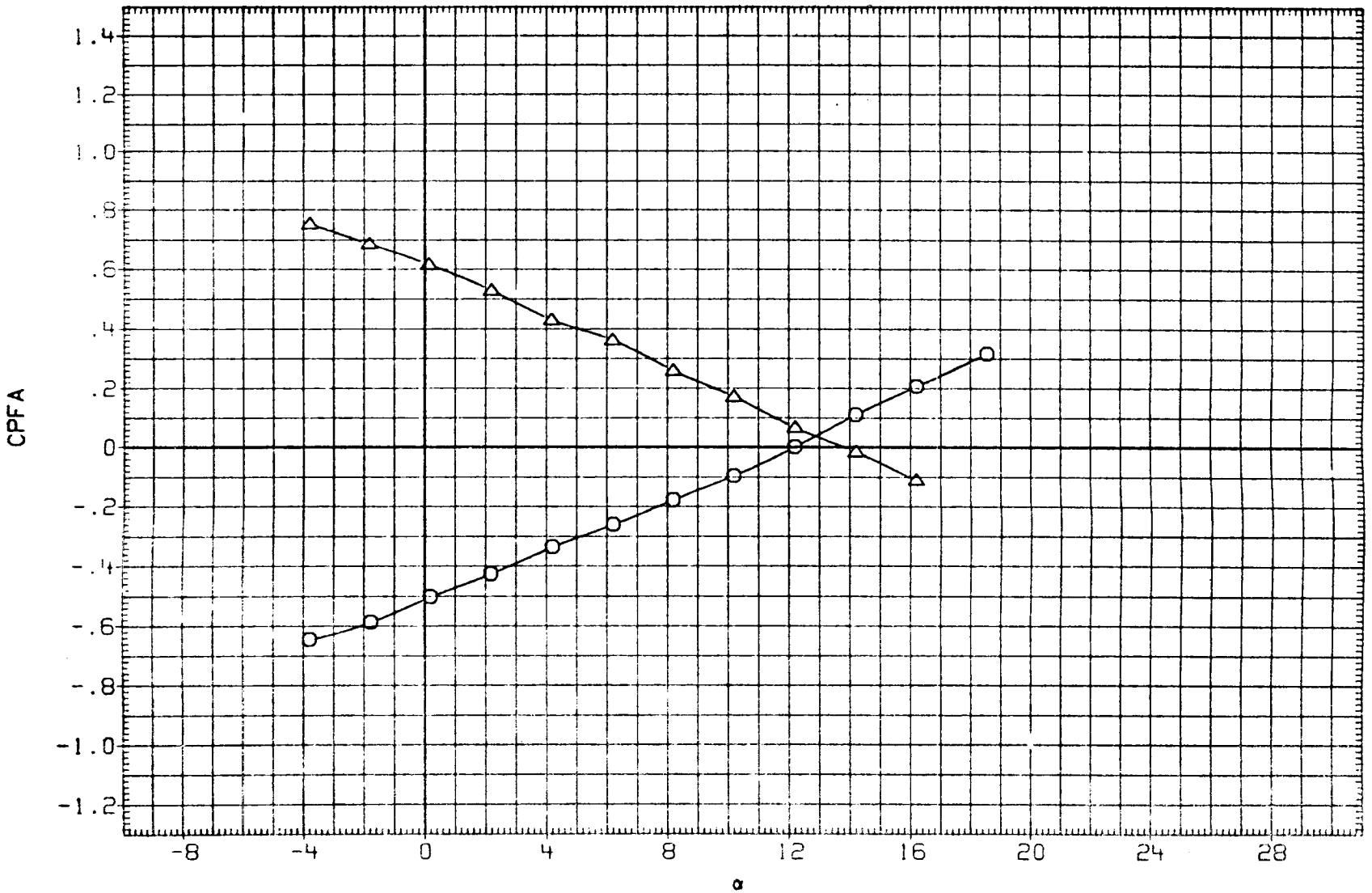


FIG. 88 0A232 FLIGHT TEST PROBE ALPHA PRESSURE CHARACTERISTICS

(A)MACH = .20

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
BVR001	○	OA232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
BVR002	□	DATA NOT AVAILABLE	.000	180.000
BVR003	◇	DATA NOT AVAILABLE	.000	.000
BVRA17	△	OA232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000

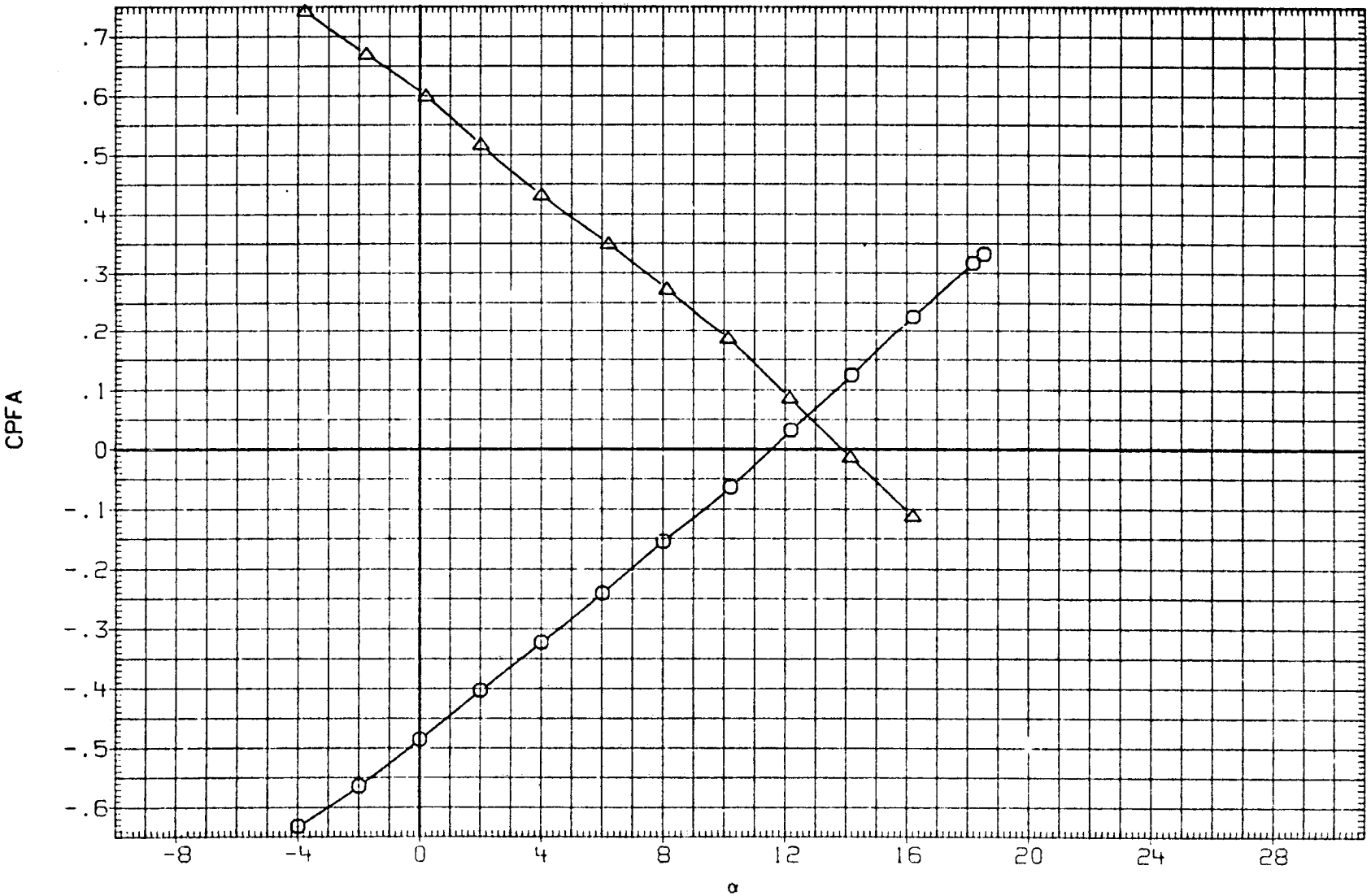


FIG. 88 OA232 FLIGHT TEST PROBE ALPHA PRESSURE CHARACTERISTICS

(B)MACH = .25

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
BVR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO 2A FTP	.000	.000
BVR002	□	DATA NOT AVAILABLE	.000	180.000
BVR003	◇	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
BVRA17	△	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000

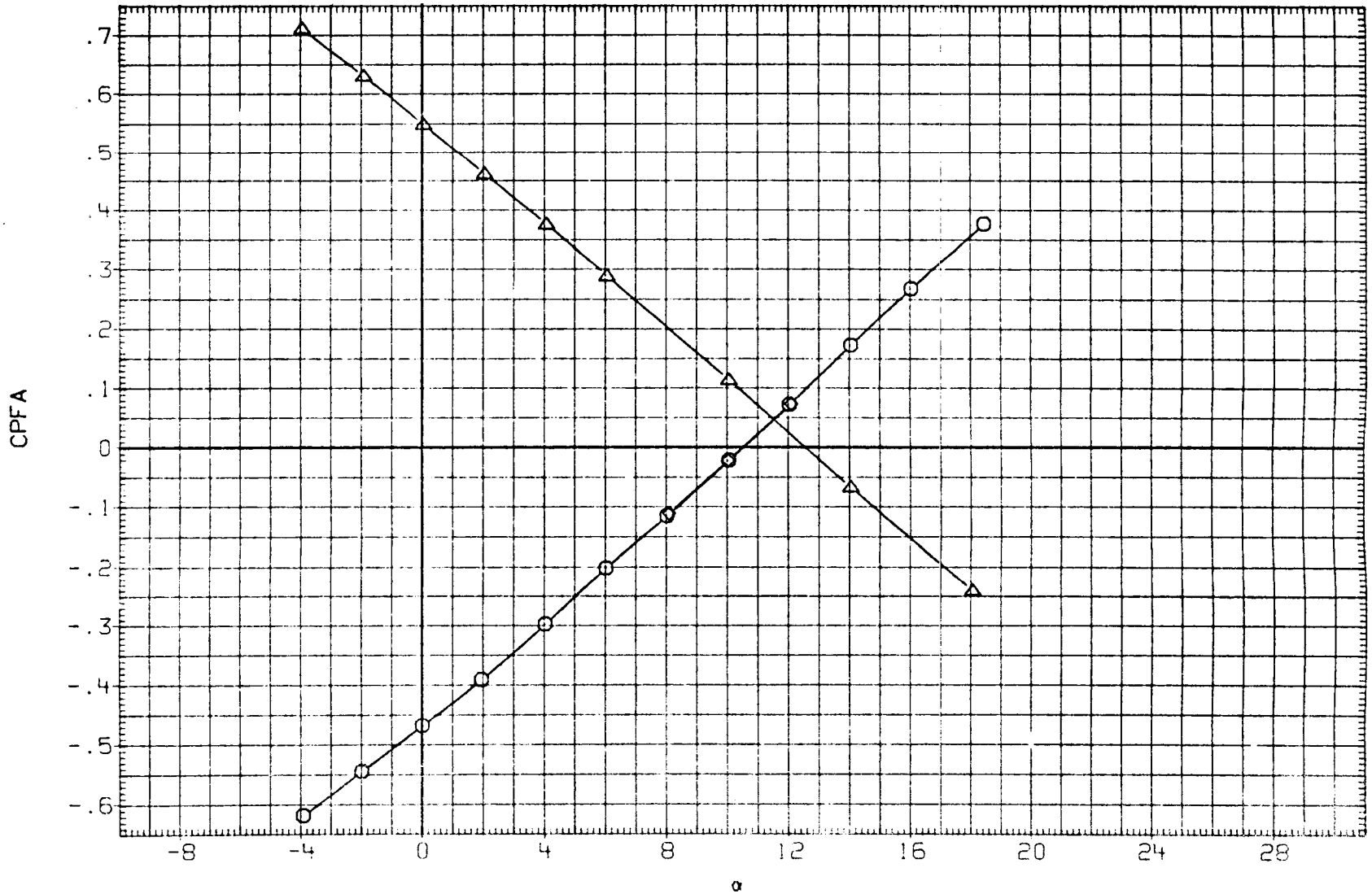


FIG. 88 0A232 FLIGHT TEST PROBE ALPHA PRESSURE CHARACTERISTICS

(C)MACH = .40 DATE 27 JUN 78 PAGE 306

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
BVR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
BVR002	□	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP INV	.000	180.000
BVR003	◇	DATA NOT AVAILABLE	.000	.000
BVRA17	△	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000

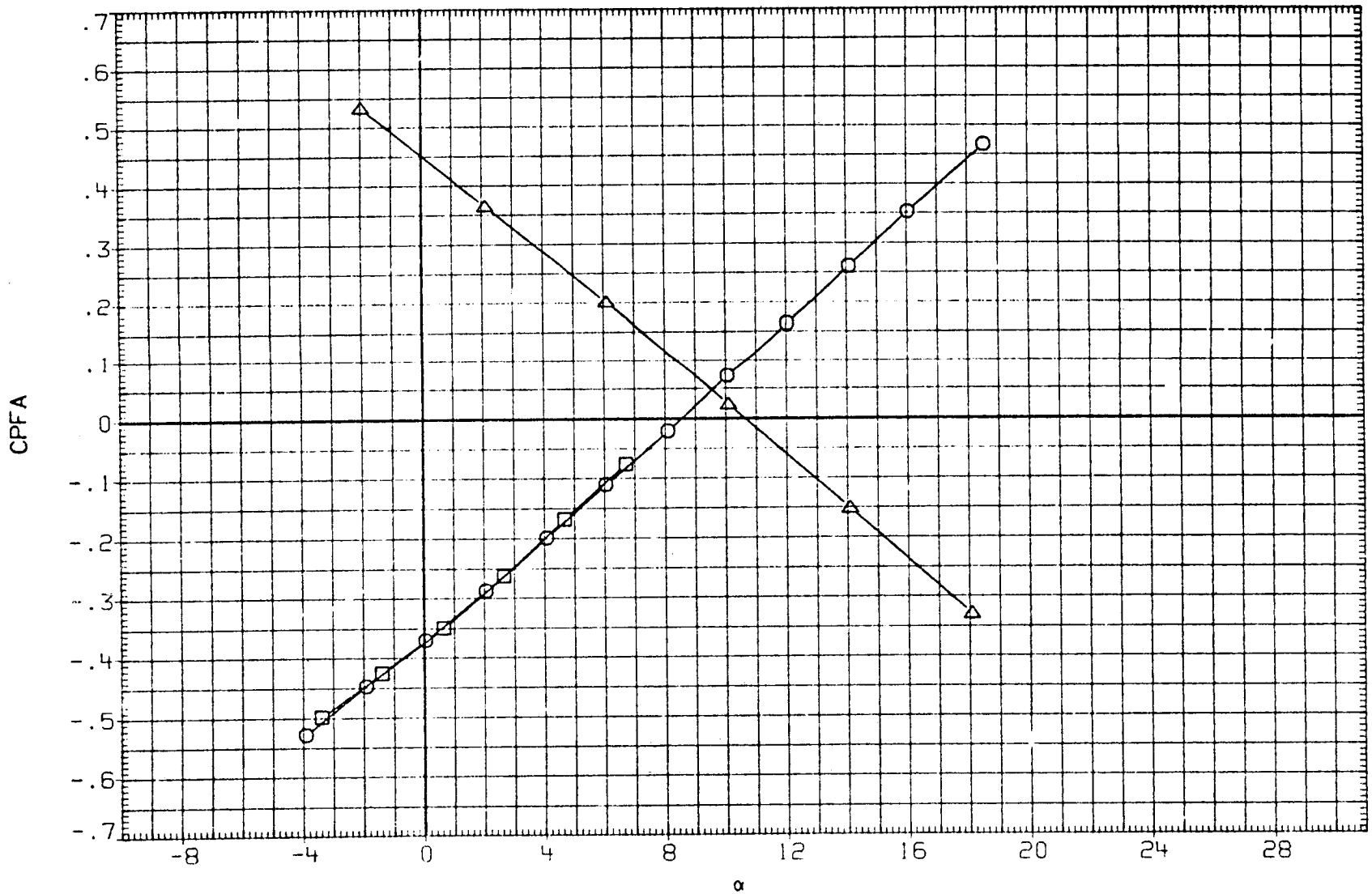


FIG. 88 0A232 FLIGHT TEST PROBE ALPHA PRESSURE CHARACTERISTICS

(D)MACH = .60

DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
BVR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
BVR002	□	DATA NOT AVAILABLE	.000	180.000
BVR003	◇	DATA NOT AVAILABLE	.000	.000
BVRA17	△	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000

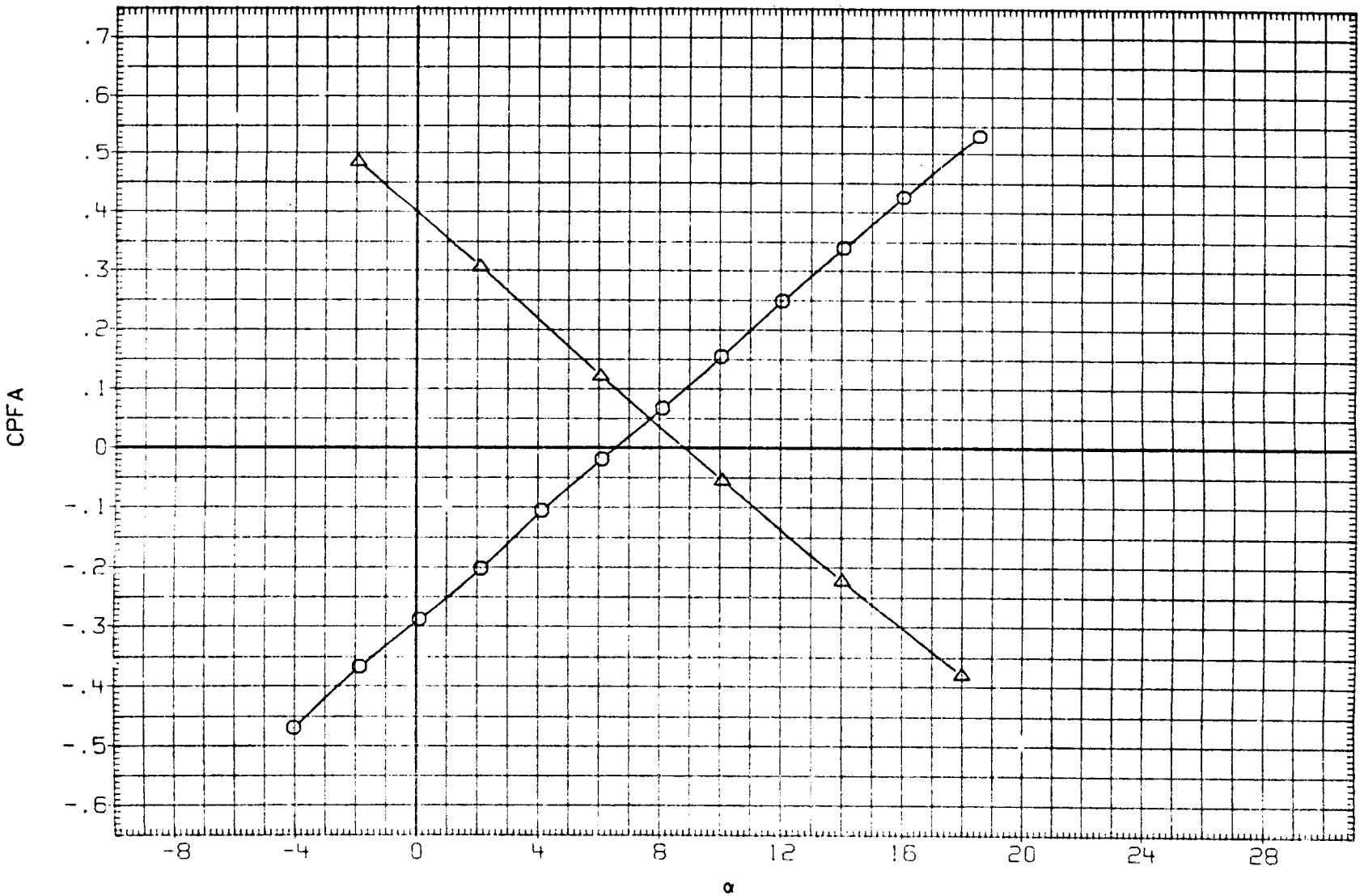


FIG. 88 0A232 FLIGHT TEST PROBE ALPHA PRESSURE CHARACTERISTICS

(E)MACH = .70 DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
BVR001	○	OA232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
BVR002	□	DATA NOT AVAILABLE	.000	180.000
BVR003	◇	DATA NOT AVAILABLE	.000	.000
BVRA17	△	OA232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000

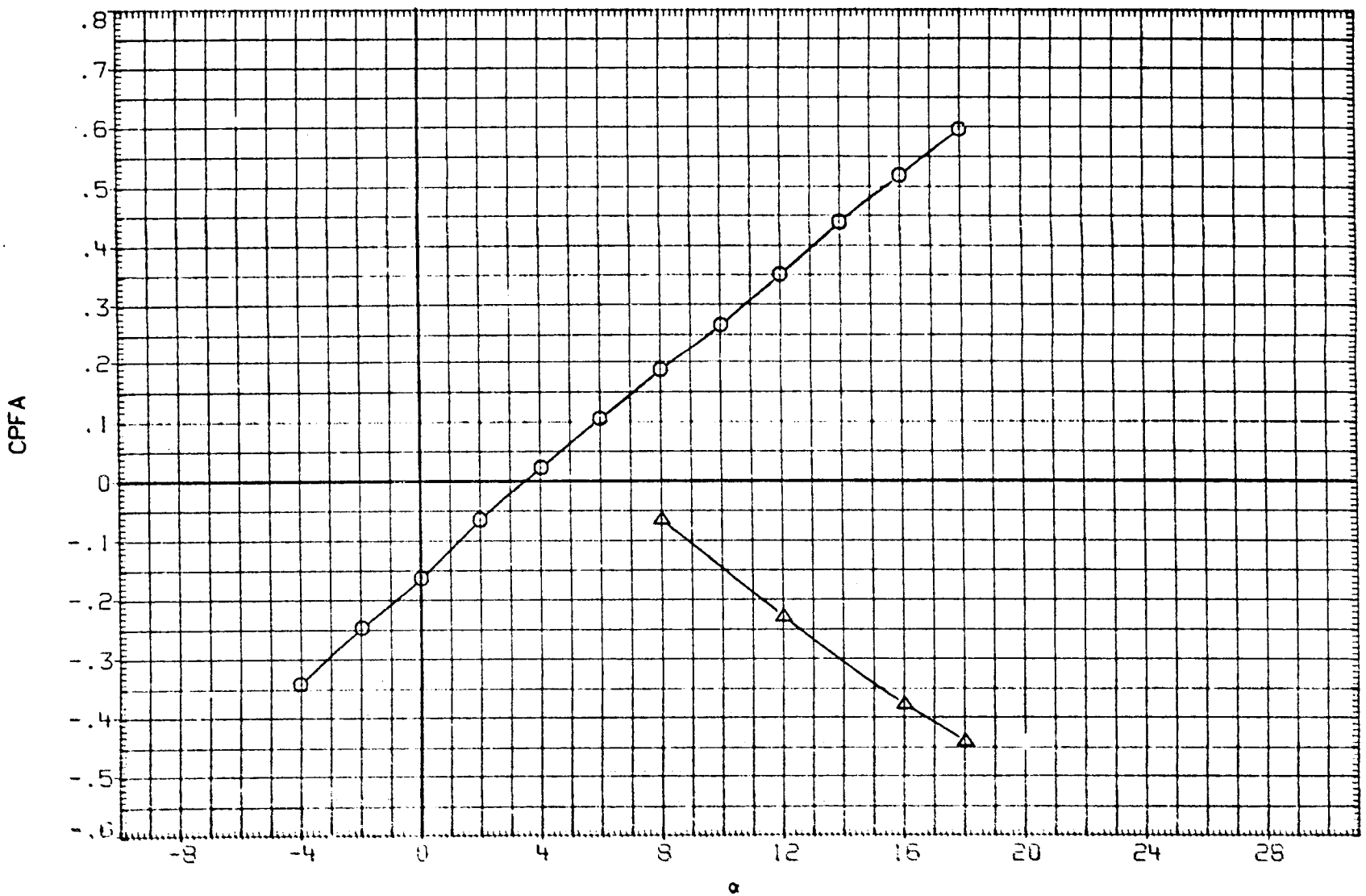


FIG. 88 OA232 FLIGHT TEST PROBE ALPHA PRESSURE CHARACTERISTICS

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
BVR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
BVR002	□	DATA NOT AVAILABLE	.000	180.000
BVR003	◇	DATA NOT AVAILABLE	.000	.000
BVRA17	△	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000

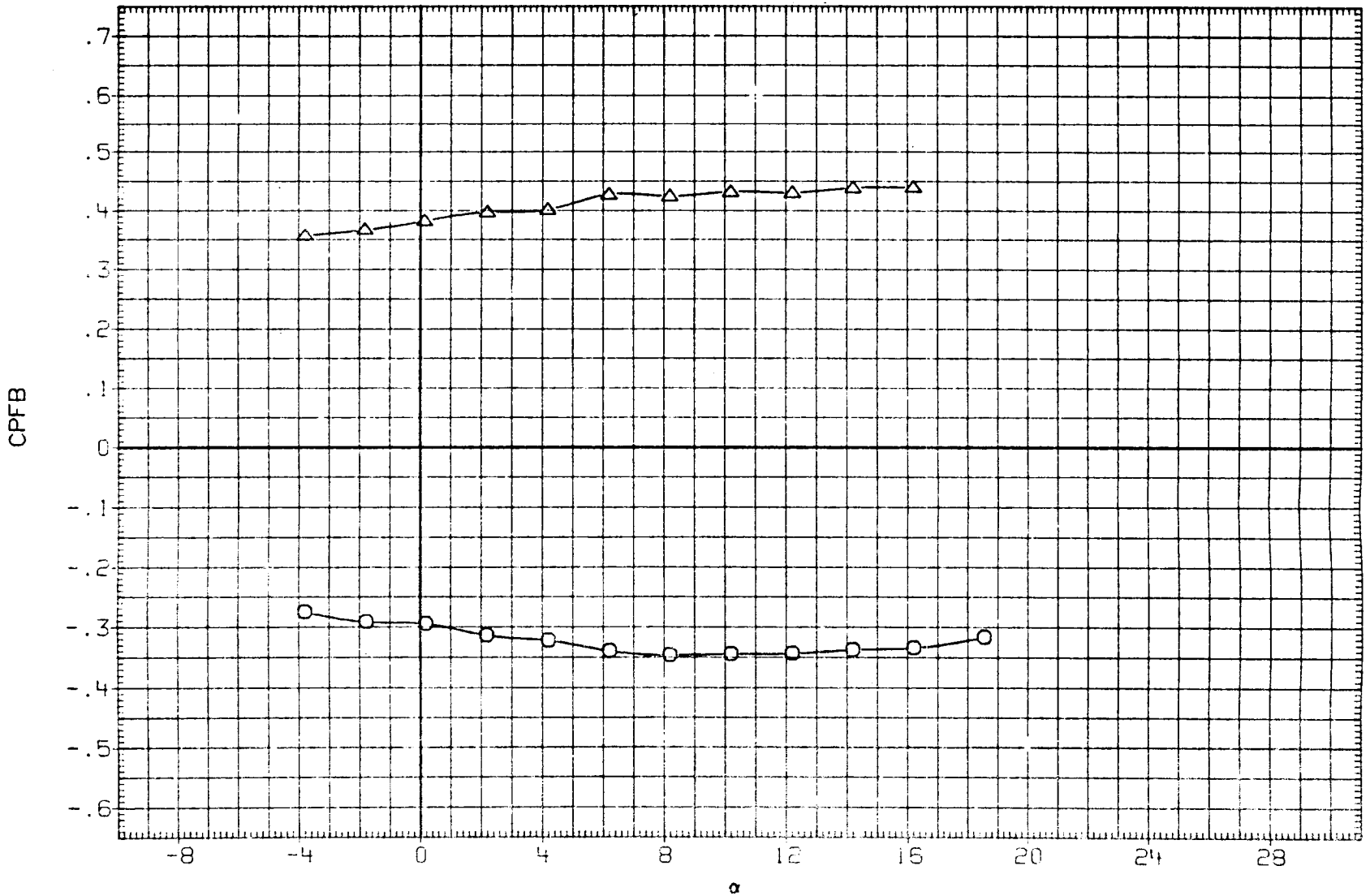


FIG. 89 0A232 FLIGHT TEST PROBE BETA PRESSURE CHARACTERISTICS

(A)MACH = .20 DATE 27 JUN 78 PAGE 310

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
BVR001	○	OA232 AEDC 16T TF431 LF0.2P/S RF0.2A FTP	.000	.000
BVR002	□	DATA NOT AVAILABLE	.000	180.000
BVR003	◇	DATA NOT AVAILABLE	.000	.000
BVRA17	△	OA232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000

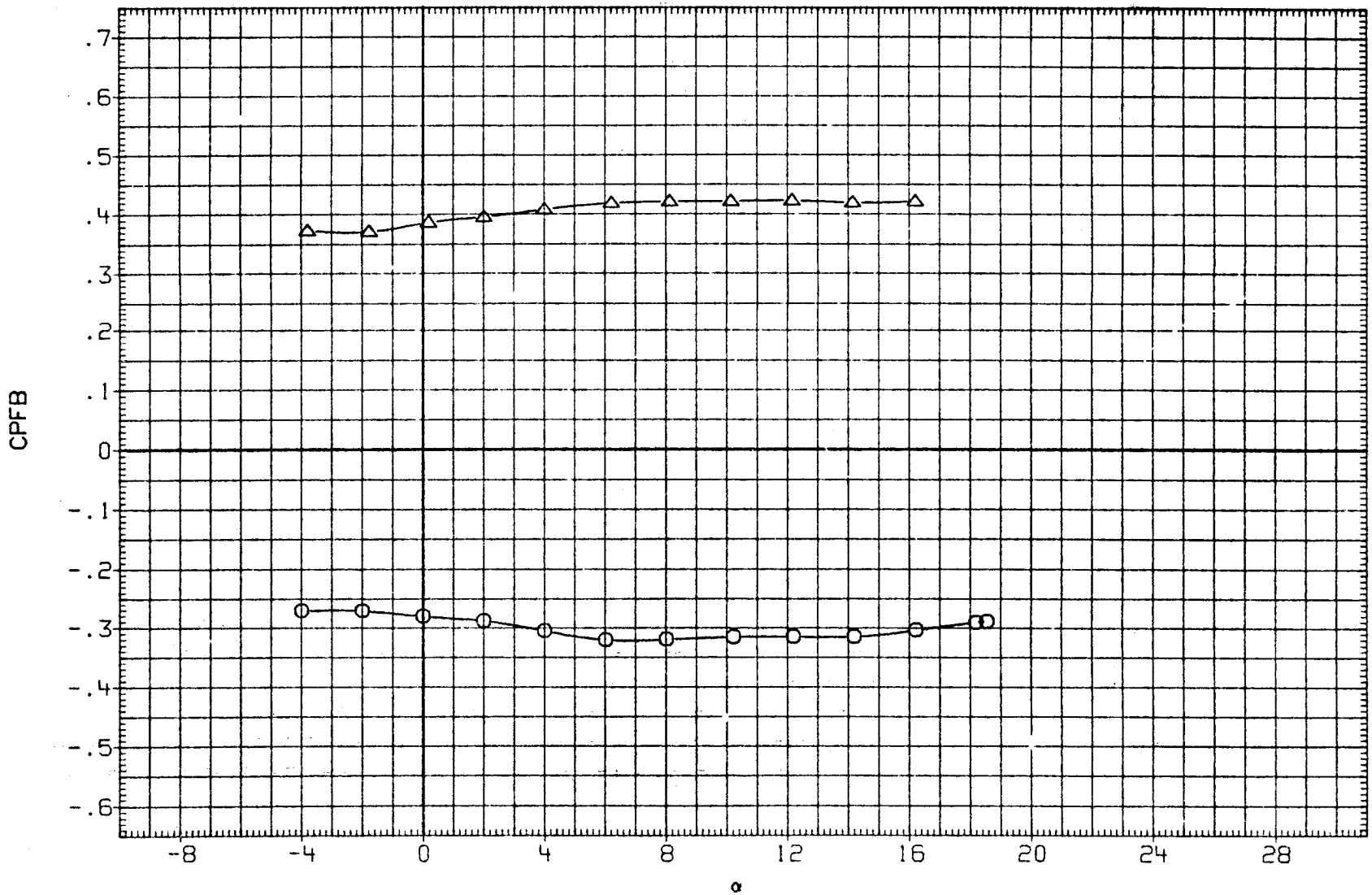


FIG. 89 OA232 FLIGHT TEST PROBE BETA PRESSURE CHARACTERISTICS

(B)MACH = .25 DATE 27 JUN 78 PAGE 311

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
BVR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
BVR002	□	DATA NOT AVAILABLE	.000	180.000
BVR003	◇	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
BVRA17	△	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000

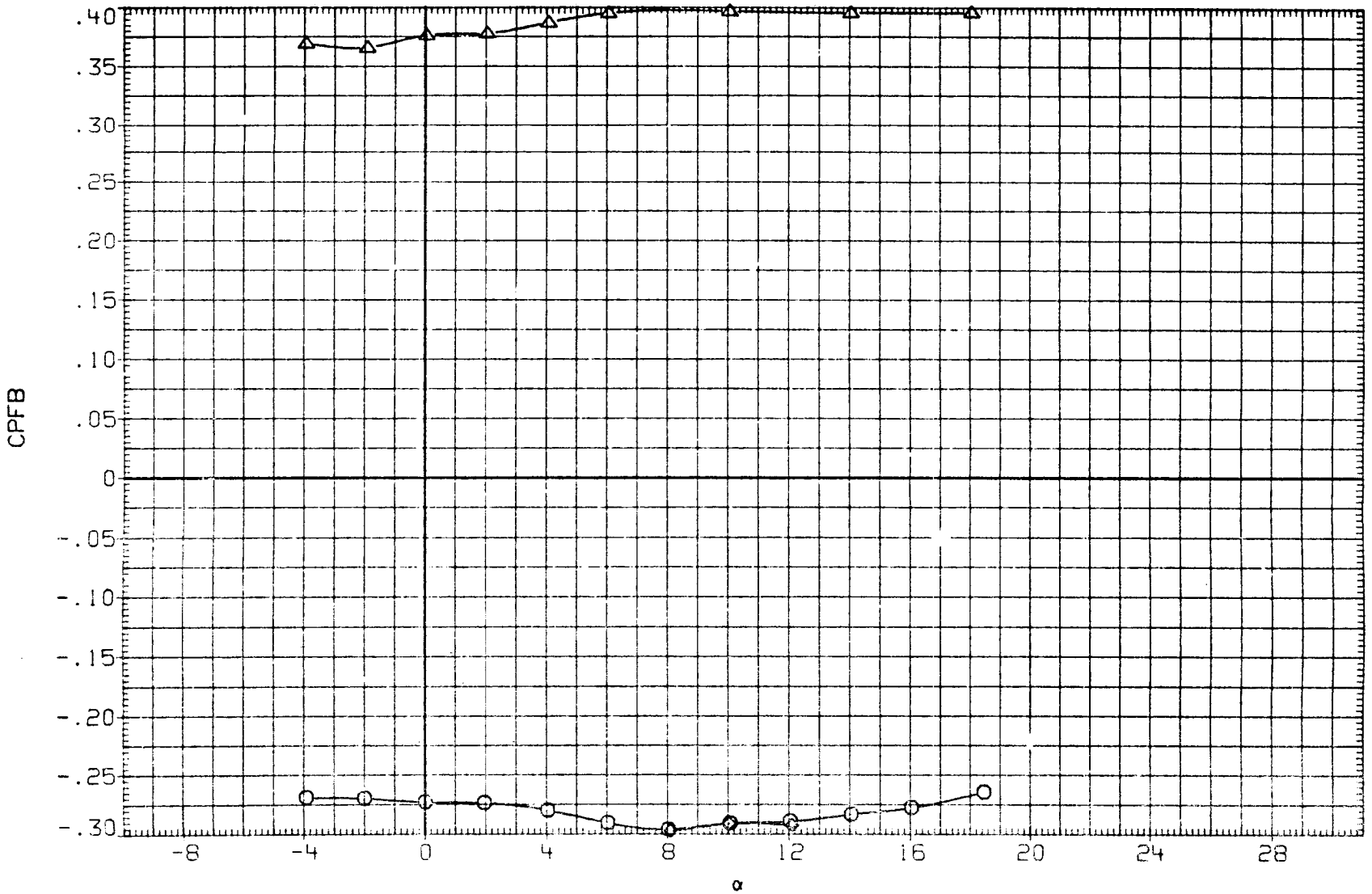


FIG. 89 0A232 FLIGHT TEST PROBE BETA PRESSURE CHARACTERISTICS

(C)MACH = .40 DATE 27 JUN 78 PAGE 312

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
BVR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
BVR002	□	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP INV	.000	180.000
BVR003	◇	DATA NOT AVAILABLE	.000	.000
BVRA17	△	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000

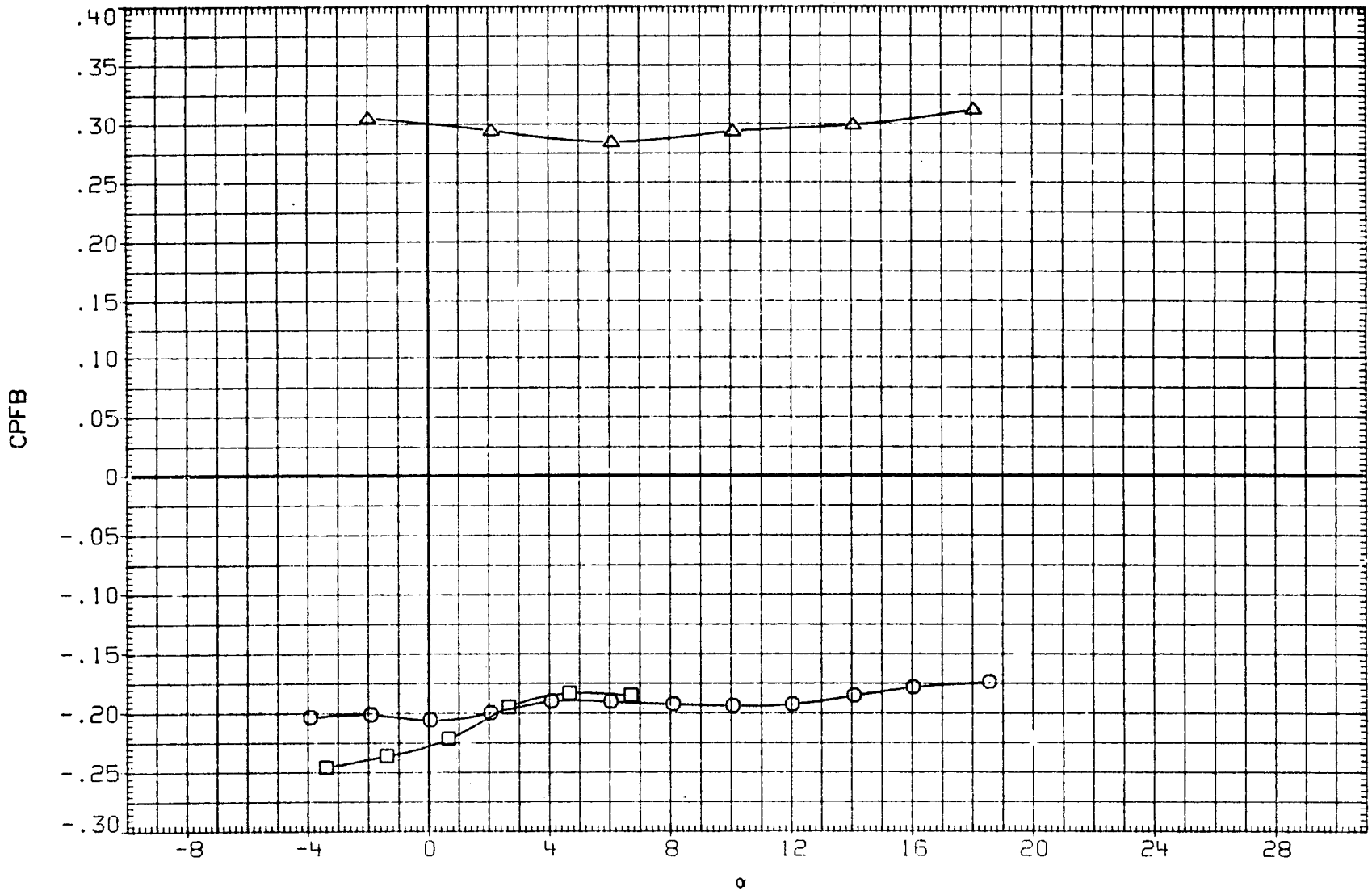


FIG. 89 0A232 FLIGHT TEST PROBE BETA PRESSURE CHARACTERISTICS

(D)MACH = .60 DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
BVR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
BVR002	□	DATA NOT AVAILABLE	.000	180.000
BVR003	◇	DATA NOT AVAILABLE	.000	.000
BVRA17	△	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000

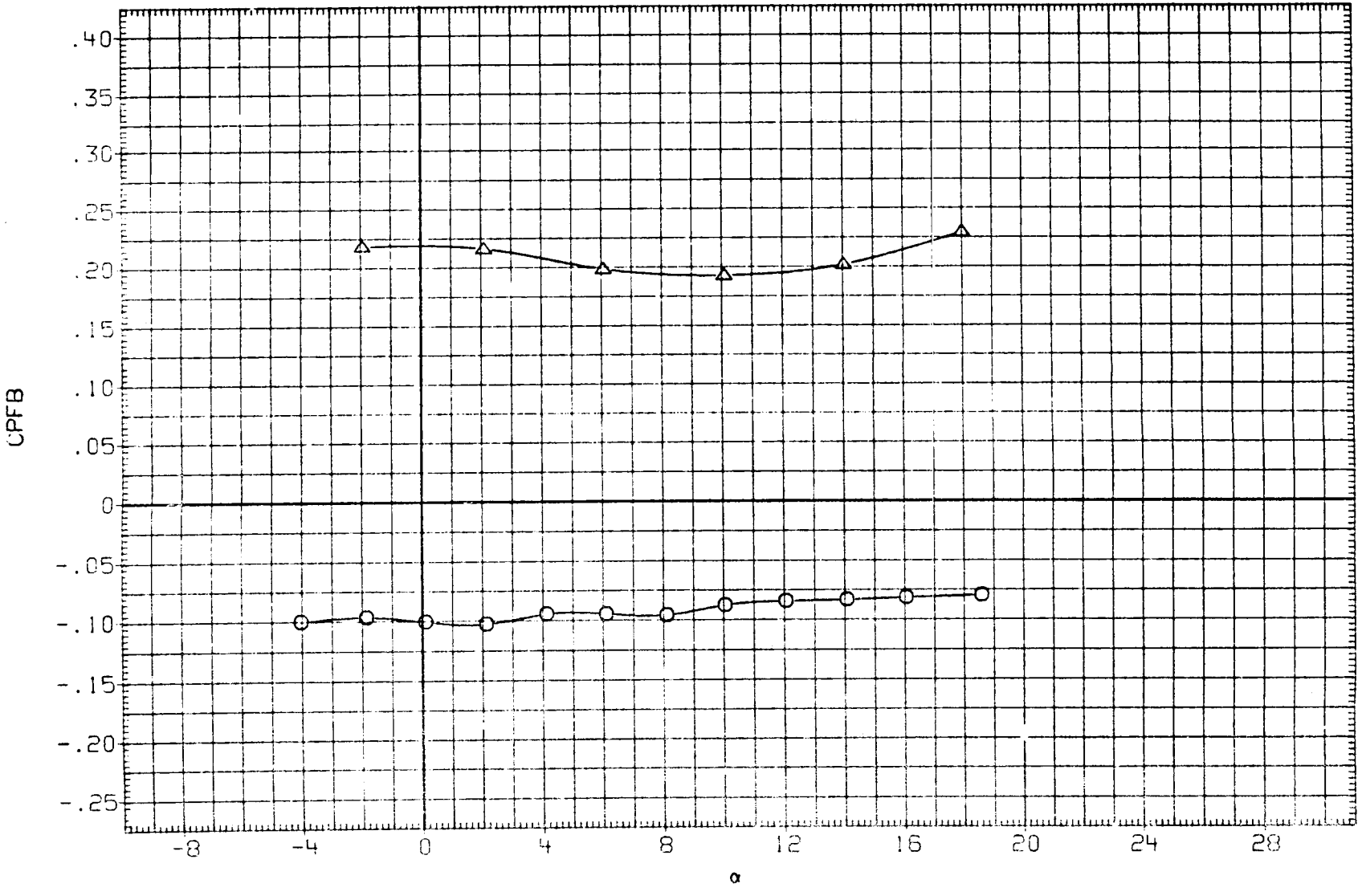


FIG. 89 0A232 FLIGHT TEST PROBE BETA PRESSURE CHARACTERISTICS

(E)MACH = .70 DATE 27 JUN 78 PAGE 314

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
BVR001	○	0A232 AEDC 15T TF431 LFO.2P/S RFO.2A FTP	.000	.000
BVR002	□	DATA NOT AVAILABLE	.000	180.000
BVR003	◇	DATA NOT AVAILABLE	.000	.000
BVRA17	△	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000

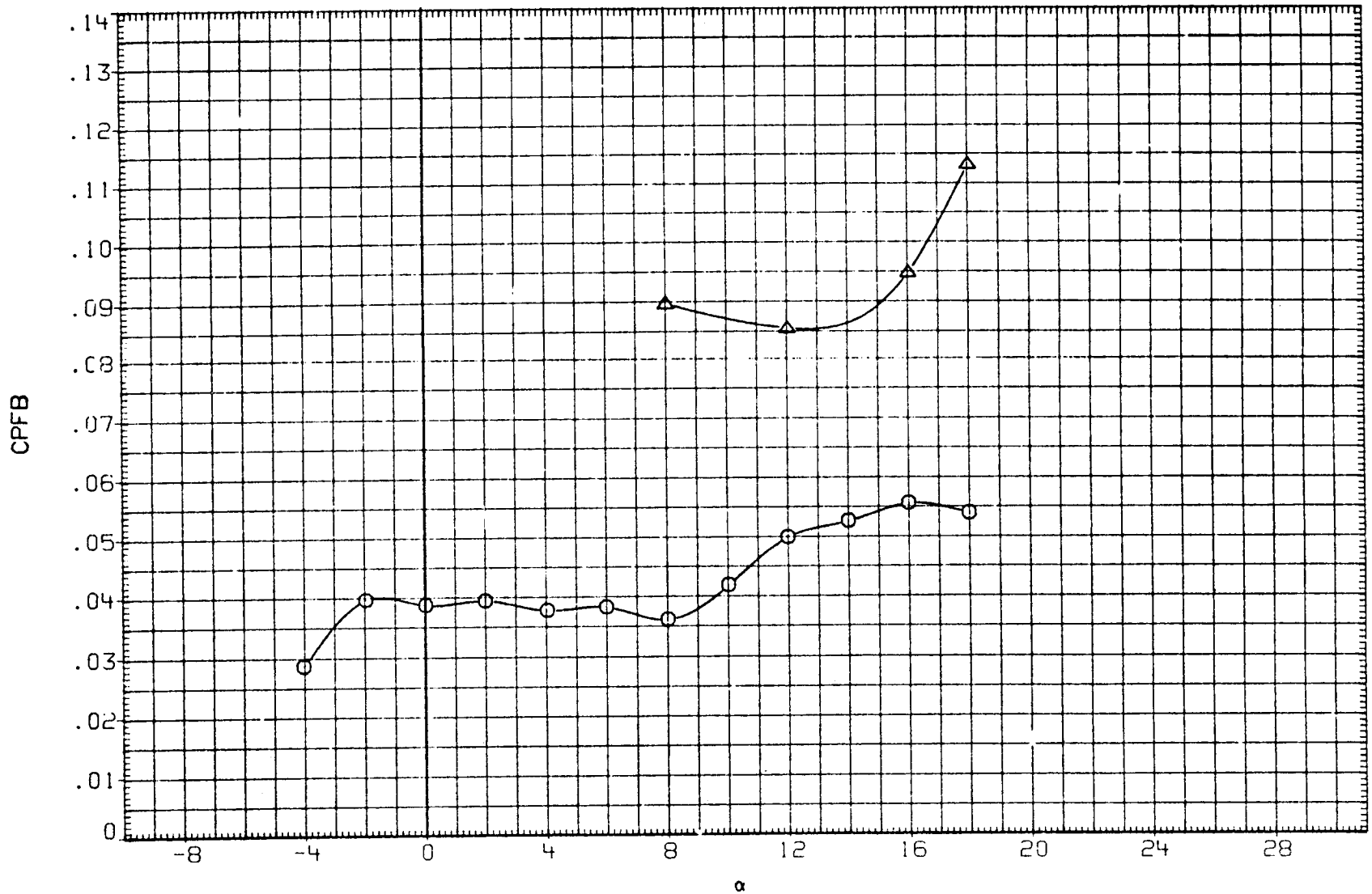


FIG. 89 0A232 FLIGHT TEST PROBE BETA PRESSURF CHARACTERISTICS

(F)MACH = .80 DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
3VR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
3VR002	□	DATA NOT AVAILABLE	.000	180.000
3VR003	◇	DATA NOT AVAILABLE	.000	.000
3VRA17	△	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000

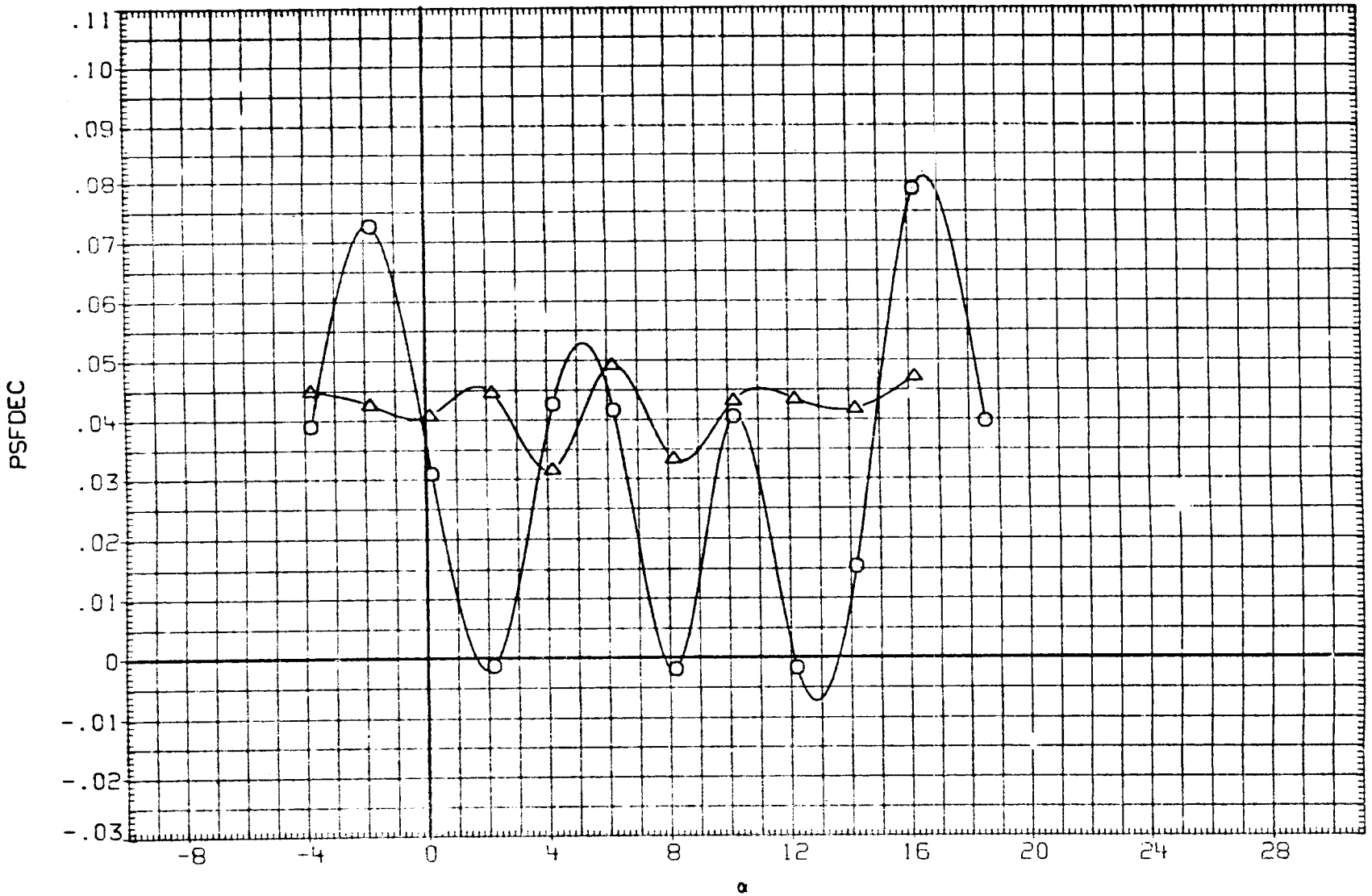


FIG. 90 0A232 FLIGHT TEST PROBE STATIC PRESSURE DECREMENT CHARACTERISTICS

(A)MACH = .20 DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
3VR001	○	OA232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
3VR002	□	DATA NOT AVAILABLE	.000	180.000
3VR003	◇	DATA NOT AVAILABLE	.000	.000
3VRA17	△	OA232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000

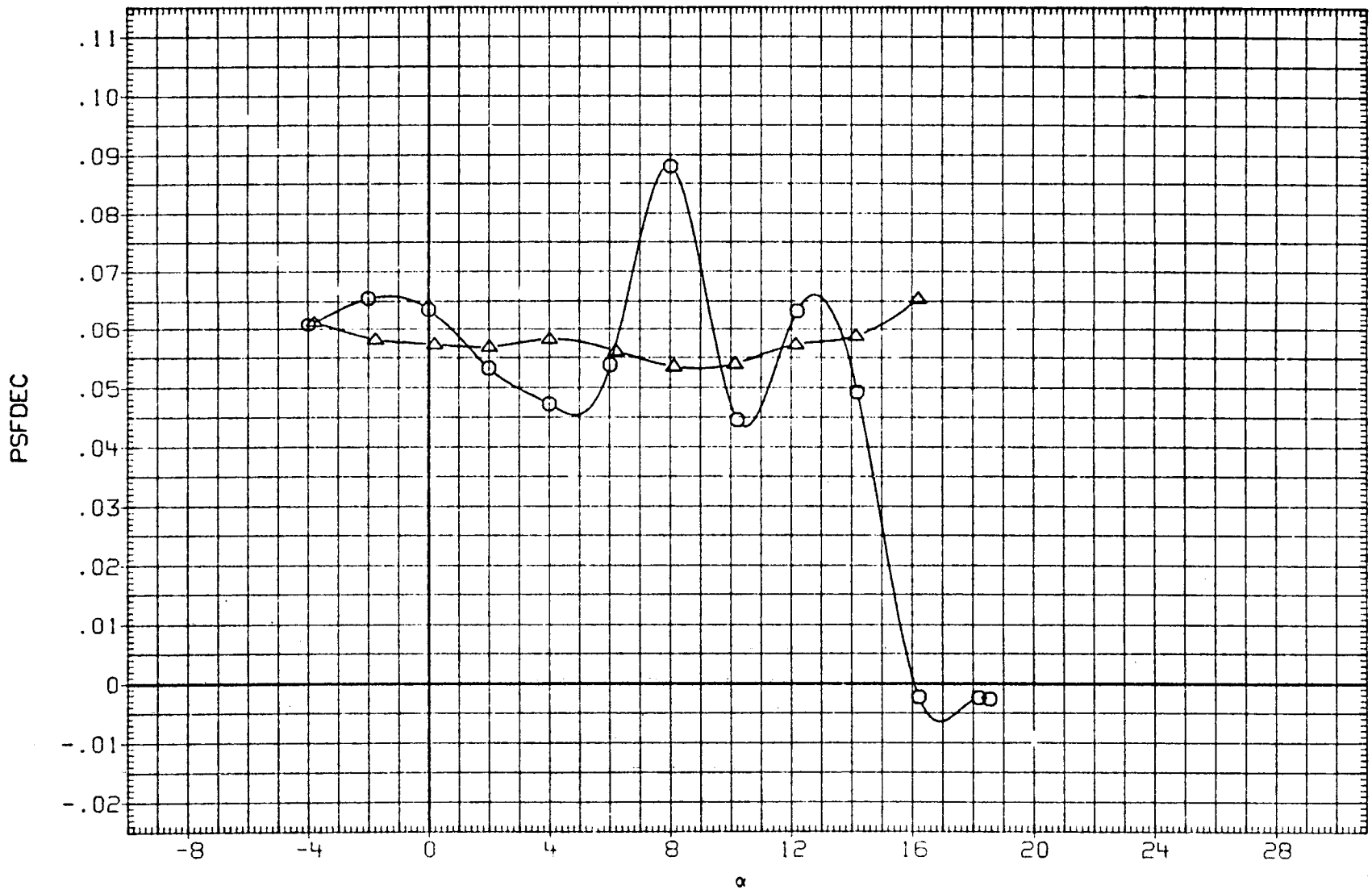


FIG. 90 OA232 FLIGHT TEST PROBE STATIC PRESSURE DECREMENT CHARACTERISTICS

(B)MACH = .25 DATE 27 JUN 78 PAGE 317

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
3VR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
3VR002	□	DATA NOT AVAILABLE	.000	180.000
3VR003	◇	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
3VRA17	△	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000

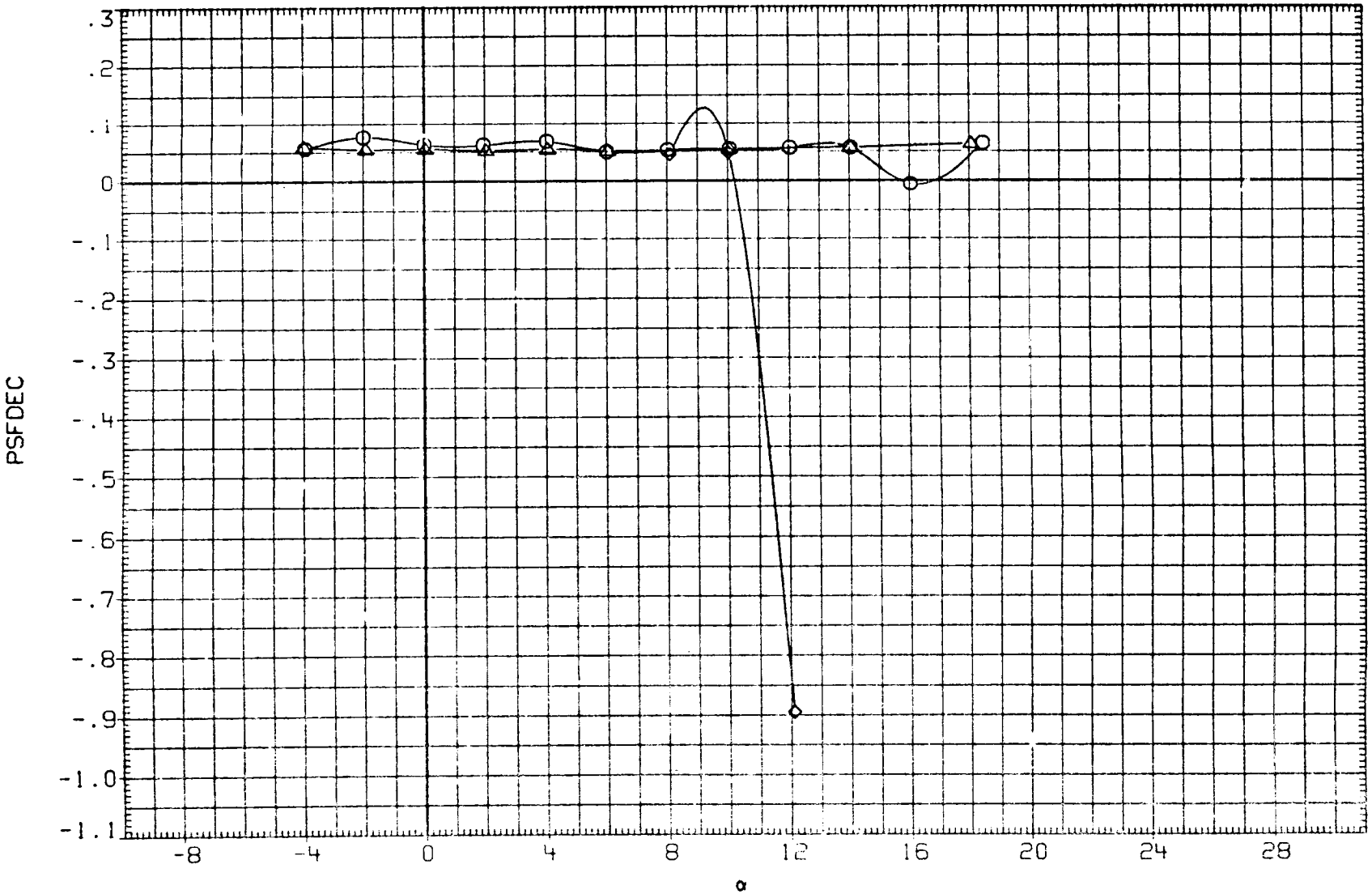


FIG. 90 0A232 FLIGHT TEST PROBE STATIC PRESSURE DECREMENT CHARACTERISTICS

(C)MACH = .40 DATE 27 JUN 78 PAGE 318

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
3VR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
3VR002	□	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP INV	.000	180.000
3VR003	◇	DATA NOT AVAILABLE	.000	.000
3VRA17	△	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000

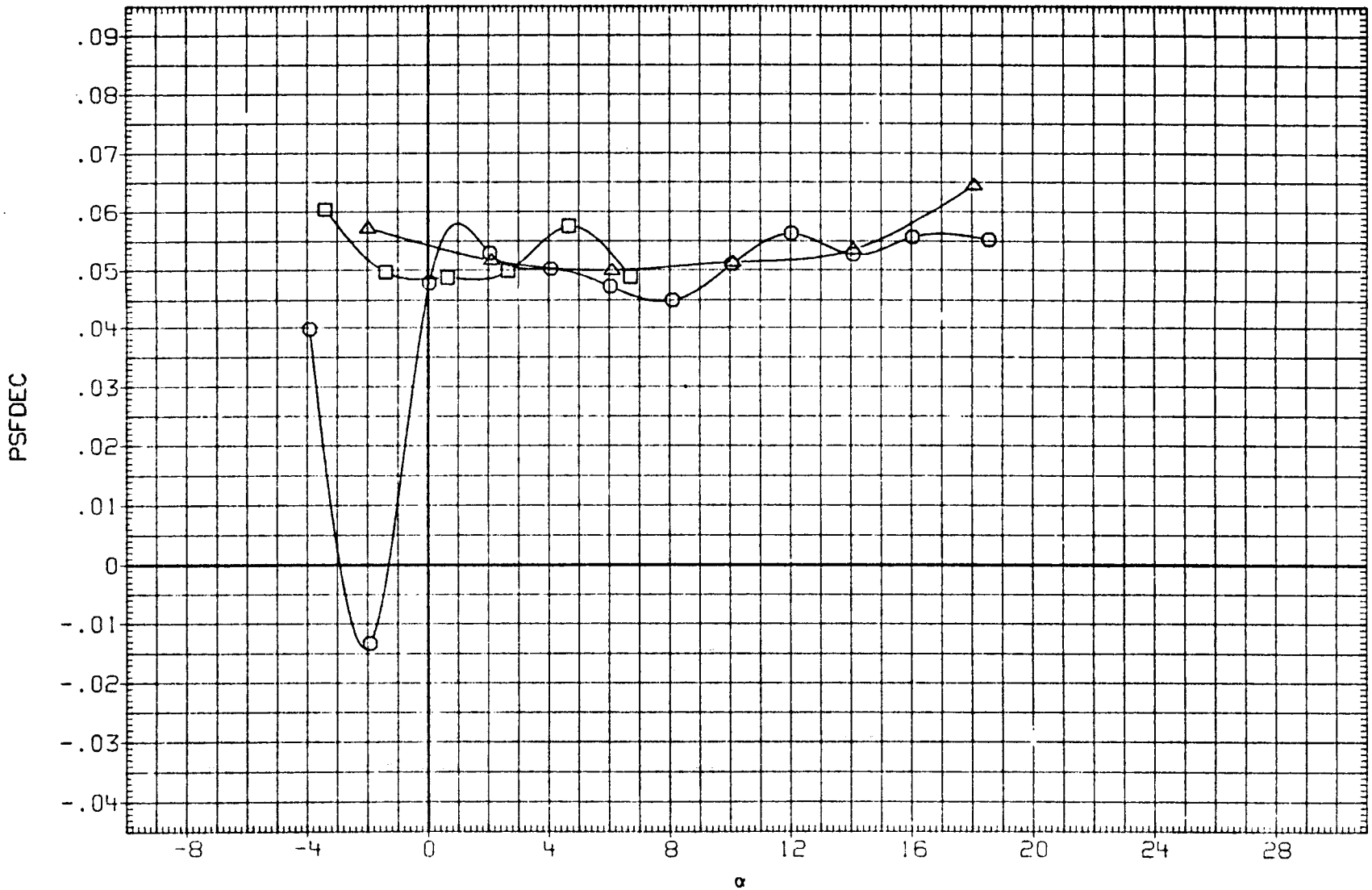


FIG. 90 0A232 FLIGHT TEST PROBE STATIC PRESSURE DECREMENT CHARACTERISTICS

(D)MACH = .60 DATE 27 JUN 78 PAGE 319

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
3VR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
3VR002	□	DATA NOT AVAILABLE	.000	180.000
3VR003	◇	DATA NOT AVAILABLE	.000	.000
3VRA17	△	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000

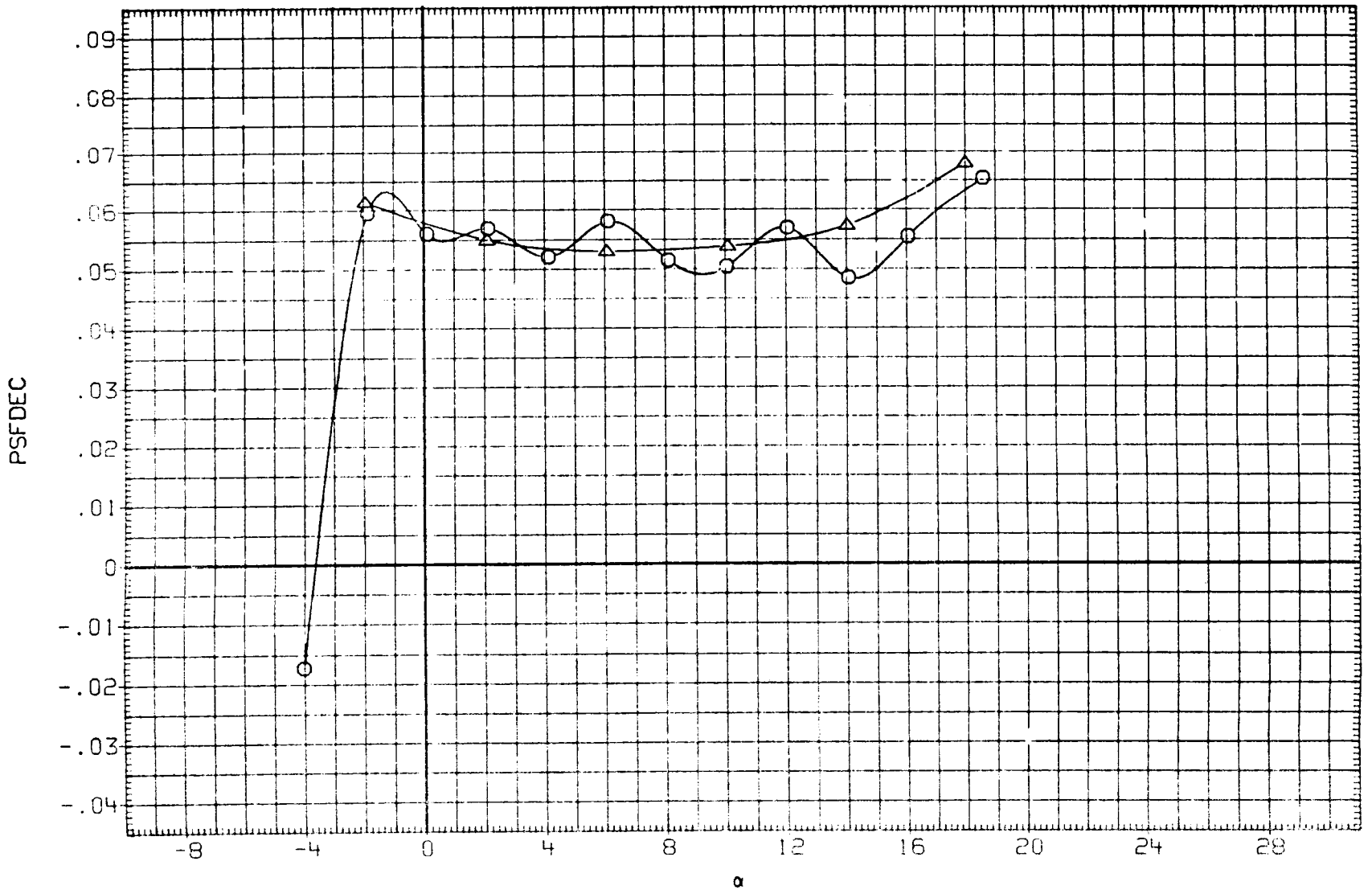


FIG. 90 0A232 FLIGHT TEST PROBE STATIC PRESSURE DECREMENT CHARACTERISTICS

(E)MACH = .70 DATE 27 JUN 78 PAGE 320

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
3VR001	○	0A232 AEDC 16T TF431 LF0.2P/S RF0.2A FTP	.000	.000
3VR002	□	DATA NOT AVAILABLE	.000	180.000
3VR003	◇	DATA NOT AVAILABLE	.000	.000
3VRA17	△	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000

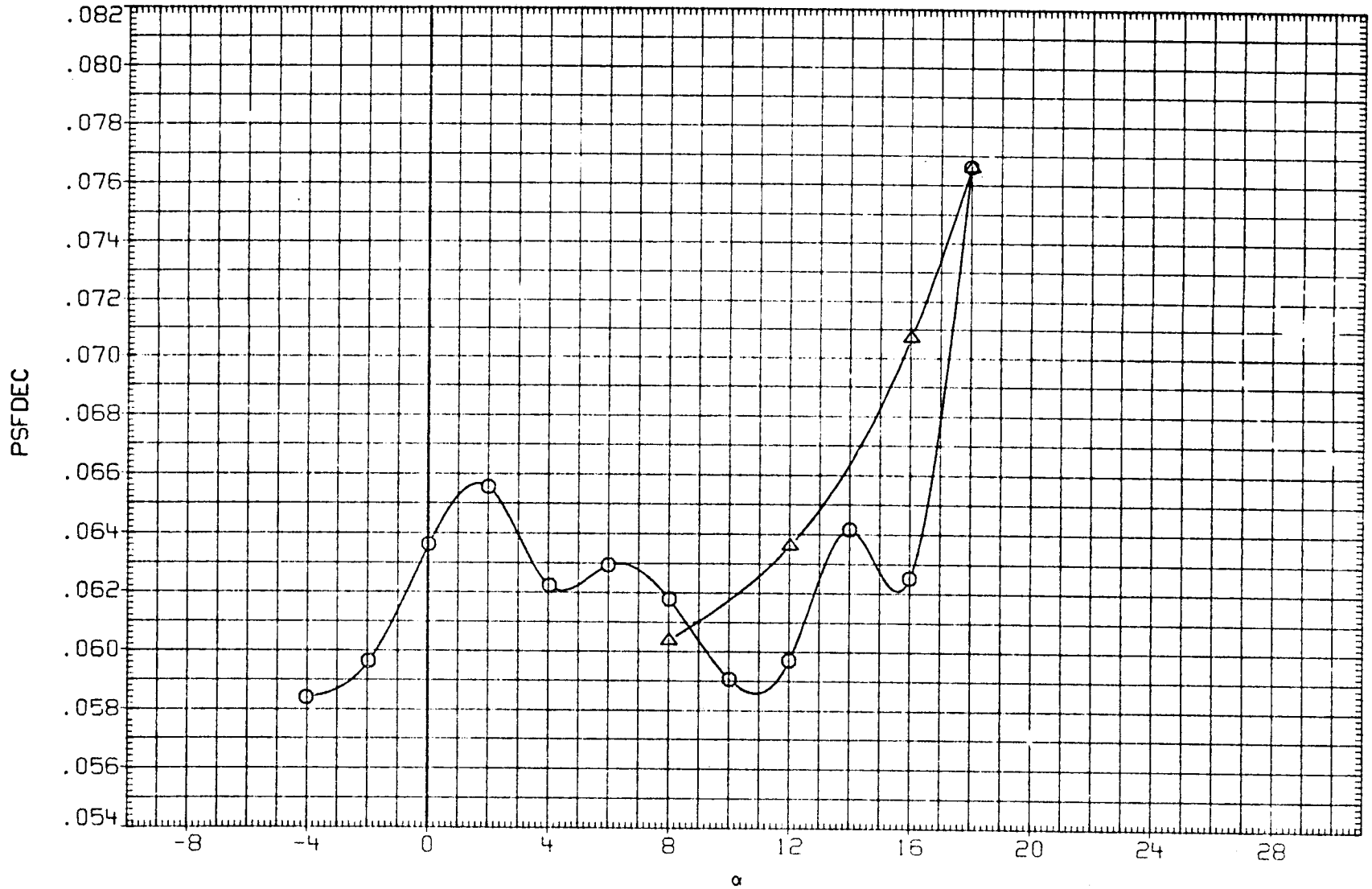


FIG. 90 0A232 FLIGHT TEST PROBE STATIC PRESSURE DECREMENT CHARACTERISTICS

(F)MACH = .80 DATE 27 JUN 78 PAGE 321

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
3VR001	○	0A232 AEDC 16T TF431 LF0.2P/S RF0.2A FTP	.000	.000
3VR002	□	DATA NOT AVAILABLE	.000	180.000
3VR003	◇	DATA NOT AVAILABLE	.000	.000
3VRA17	△	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000

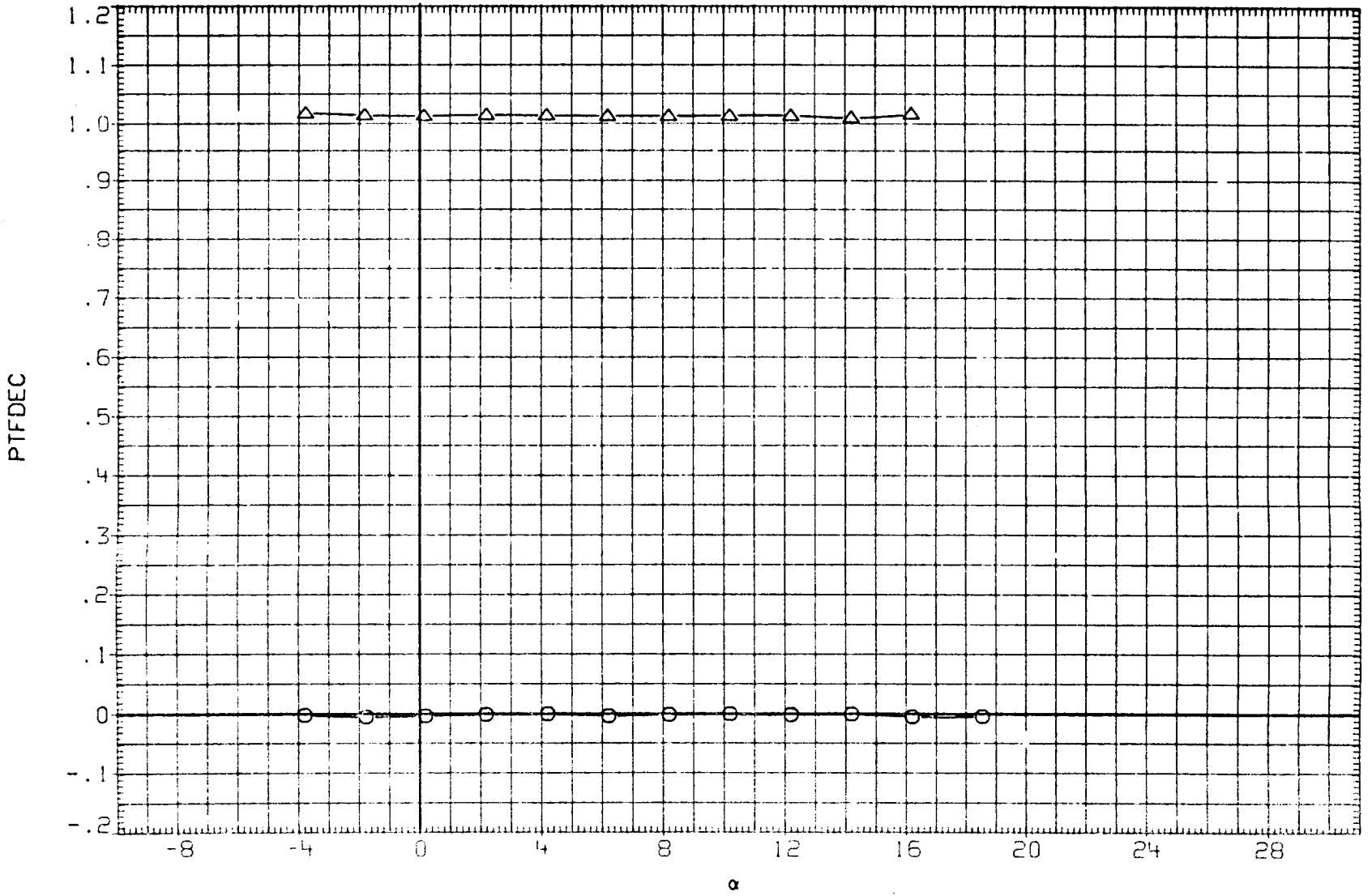


FIG. 91 0A232 FLIGHT TEST PROBE TOTAL PRESSURE DECREMENT CHARACTERISTICS

(A)MACH = .20 DATE 27 JUN 78 PAGE 322

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
3VR001	○	OA232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
3VR002	□	DATA NOT AVAILABLE	.000	180.000
3VR003	◇	DATA NOT AVAILABLE	.000	.000
3VRA17	△	OA232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000

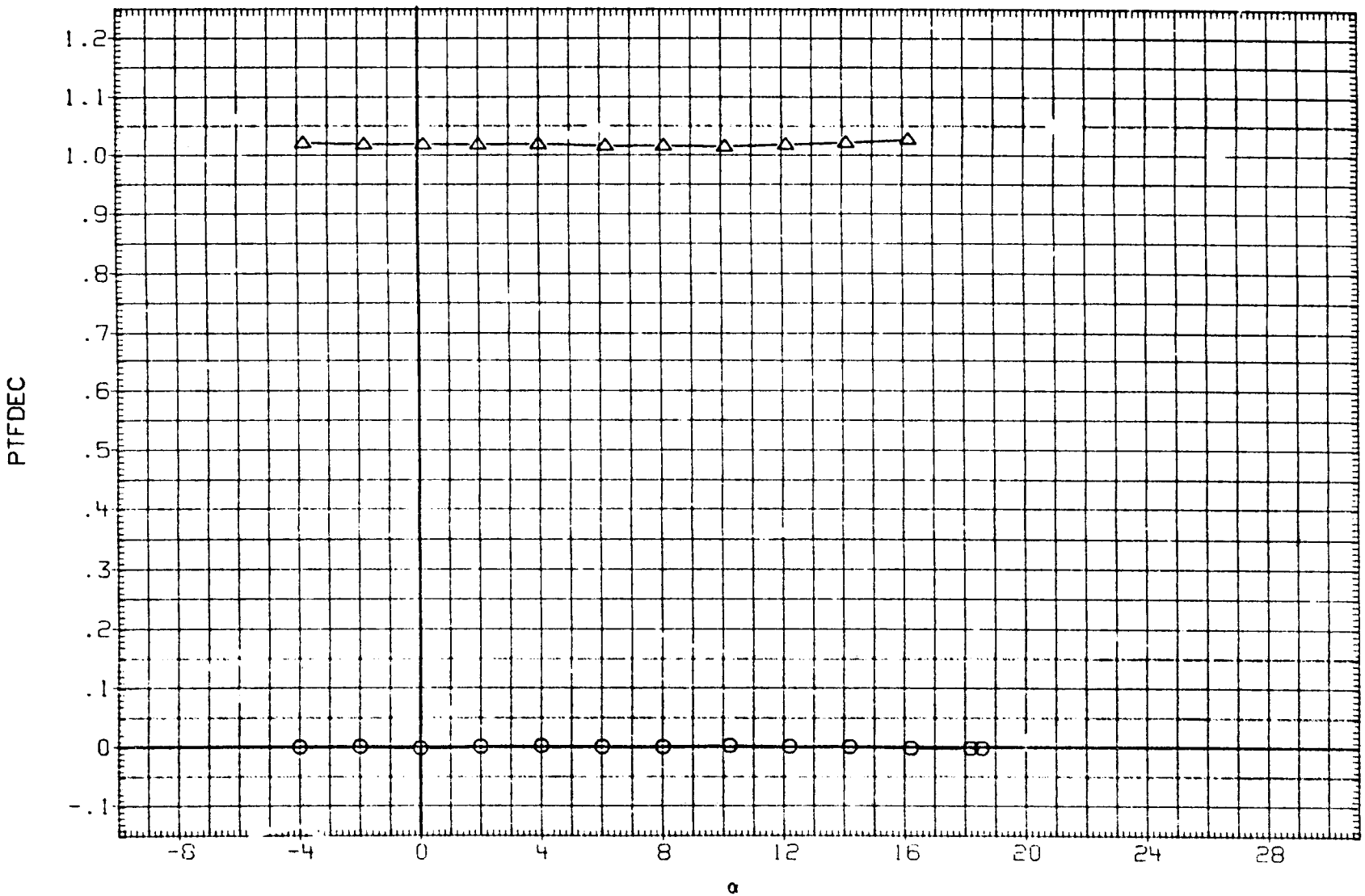


FIG. 91 OA232 FLIGHT TEST PROBE TOTAL PRESSURE DECREMENT CHARACTERISTICS

(B)MACH = .25 DATE 27 JUN 78 PAGE 323

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
3VR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
3VR002	□	DATA NOT AVAILABLE	.000	180.000
3VR003	◇	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
3VRA17	△	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000

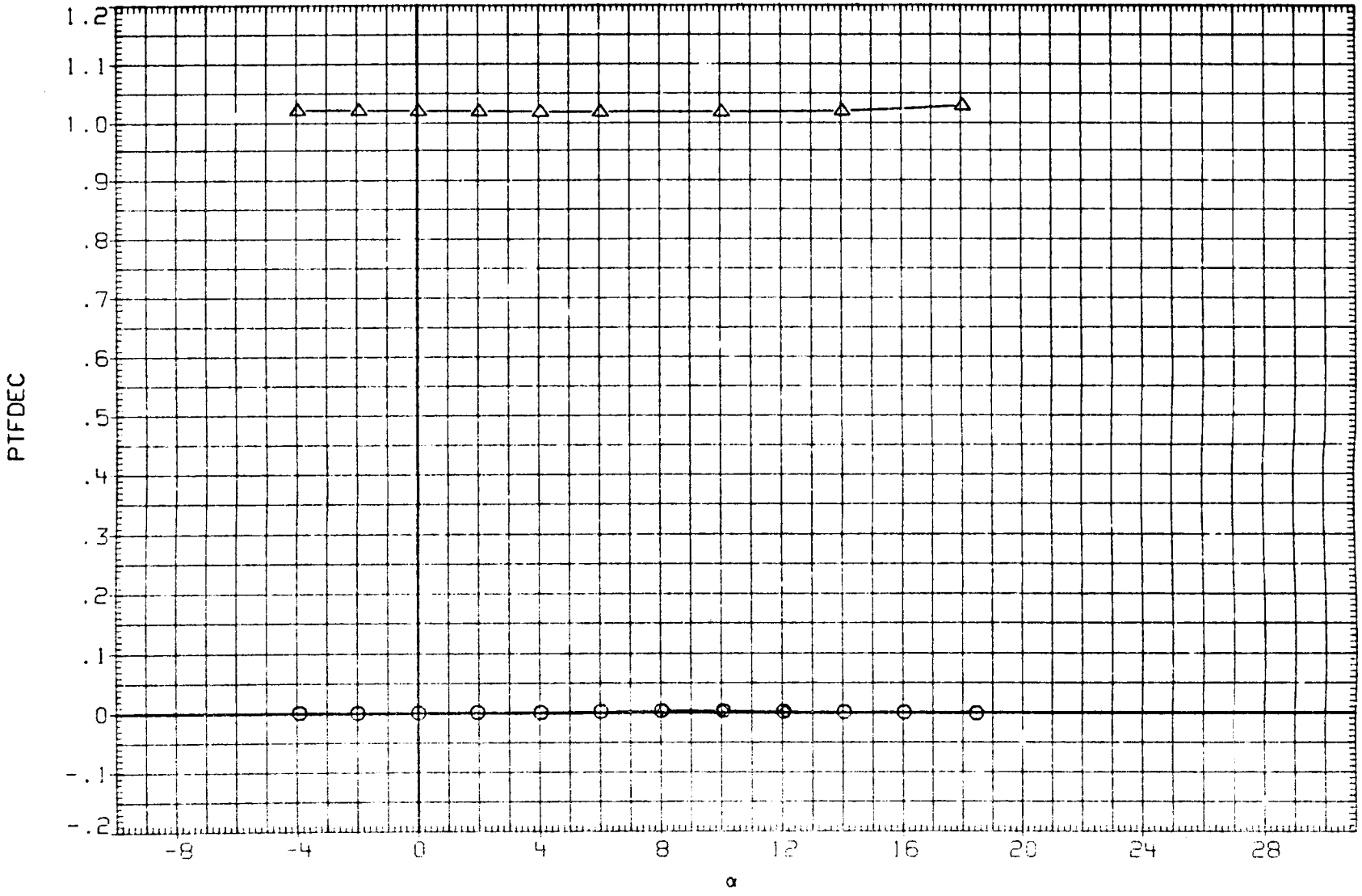


FIG. 91 0A232 FLIGHT TEST PROBE TOTAL PRESSURE DECREMENT CHARACTERISTICS

(C)MACH = .40 DATE 27 JUN 78 PAGE 324

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
3VR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
3VR002	□	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP INV	.000	180.000
3VR003	◇	DATA NOT AVAILABLE	.000	.000
3VRA17	△	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000

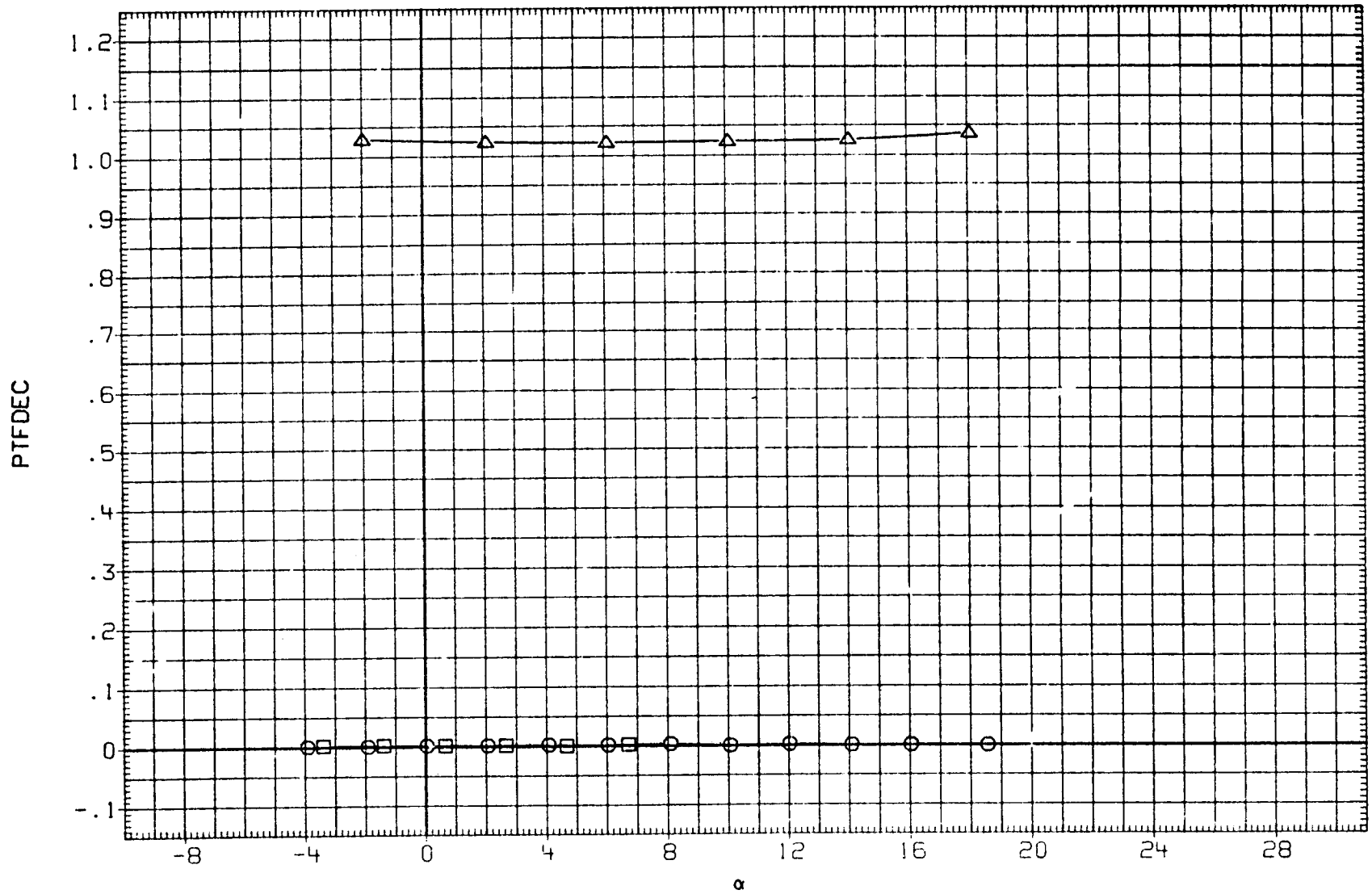


FIG. 91 0A232 FLIGHT TEST PROBE TOTAL PRESSURE DECREMENT CHARACTERISTICS

(D)MACH = .60 DATE 27 JUN 78 PAGE 325

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
3VR001	○	OA232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
3VR002	□	DATA NOT AVAILABLE	.000	180.000
3VR003	◇	DATA NOT AVAILABLE	.000	.000
3VRA17	△	OA232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000

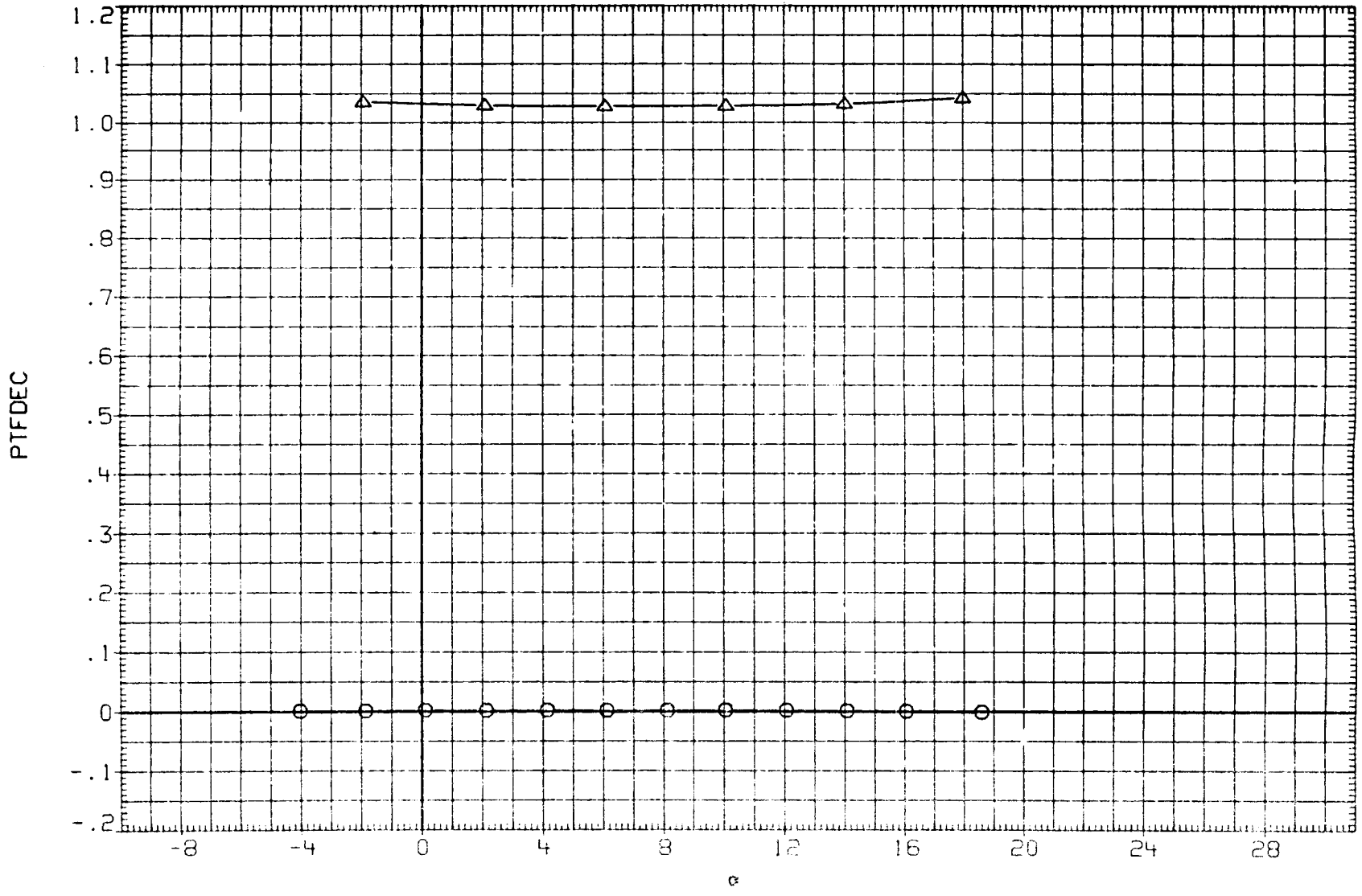


FIG. 91 OA232 FLIGHT TEST PROBE TOTAL PRESSURE DECREMENT CHARACTERISTICS

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
3VR001	○	OA232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
3VR002	□	DATA NOT AVAILABLE	.000	180.000
3VR003	◇	DATA NOT AVAILABLE	.000	.000
3VRA17	△	OA232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000

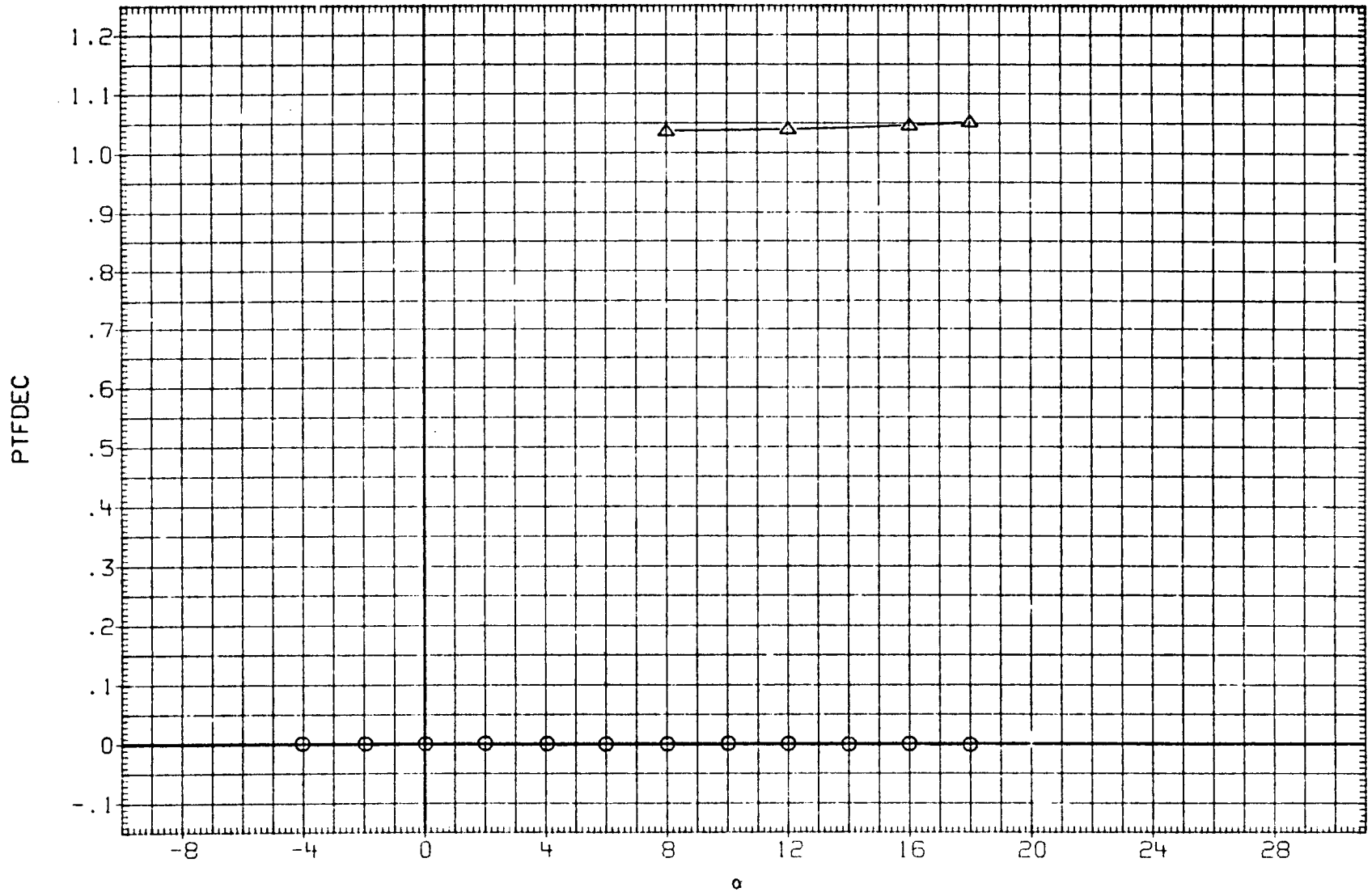


FIG. 91 OA232 FLIGHT TEST PROBE TOTAL PRESSURE DECREMENT CHARACTERISTICS

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
BVR001	○	OA232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
BVR002	□	DATA NOT AVAILABLE	.000	180.000
BVR003	◇	DATA NOT AVAILABLE	.000	.000
BVRA17	△	OA232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000

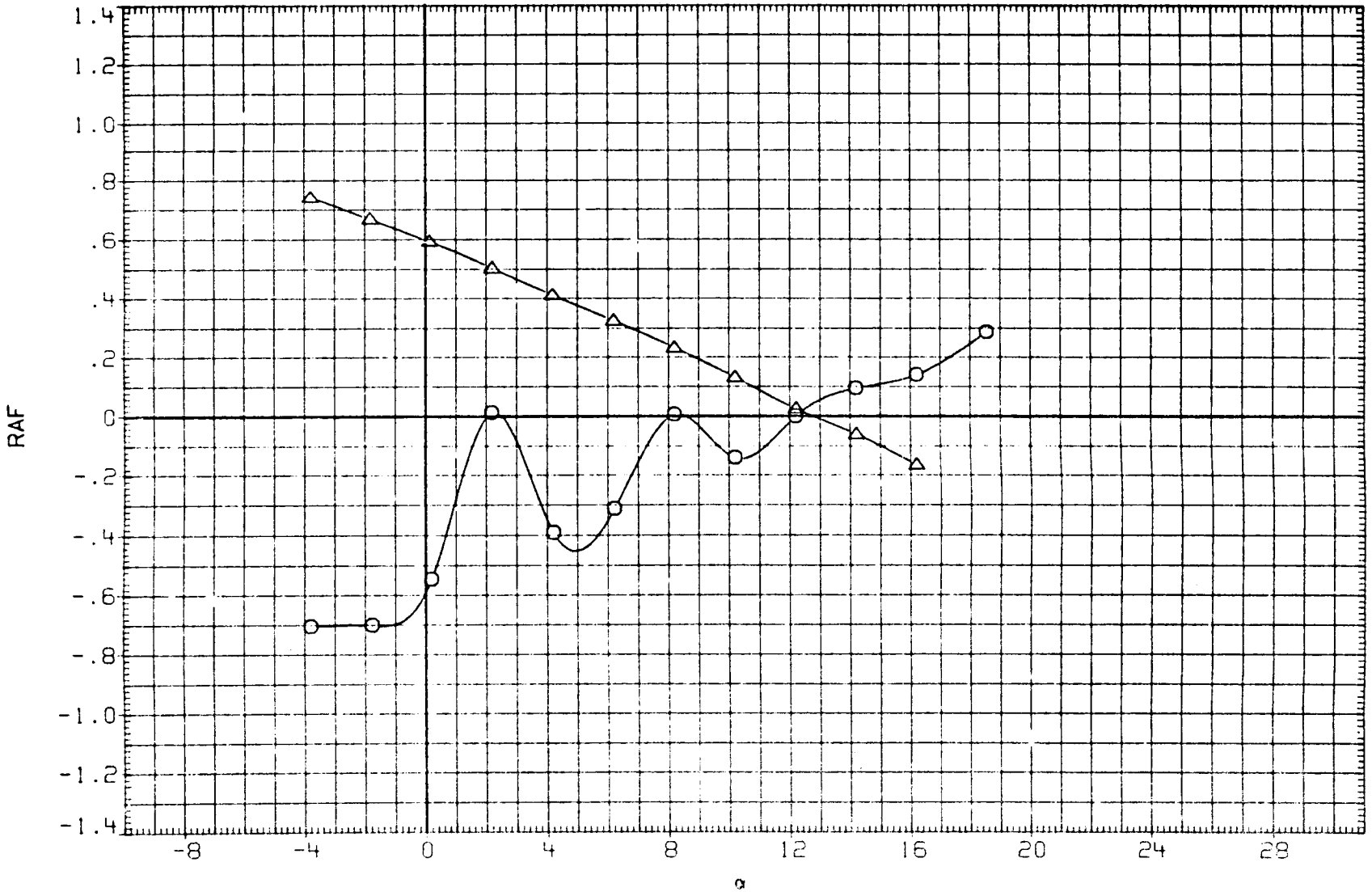


FIG. 92 OA232 FLIGHT TEST PROBE ALPHA PARAMETER CHARACTERISTICS

(A)MACH = .20 DATE 27 JUN 78 PAGE 328

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
BVR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
BVR002	□	DATA NOT AVAILABLE	.000	180.000
BVR003	◇	DATA NOT AVAILABLE	.000	.000
BVRA17	△	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000

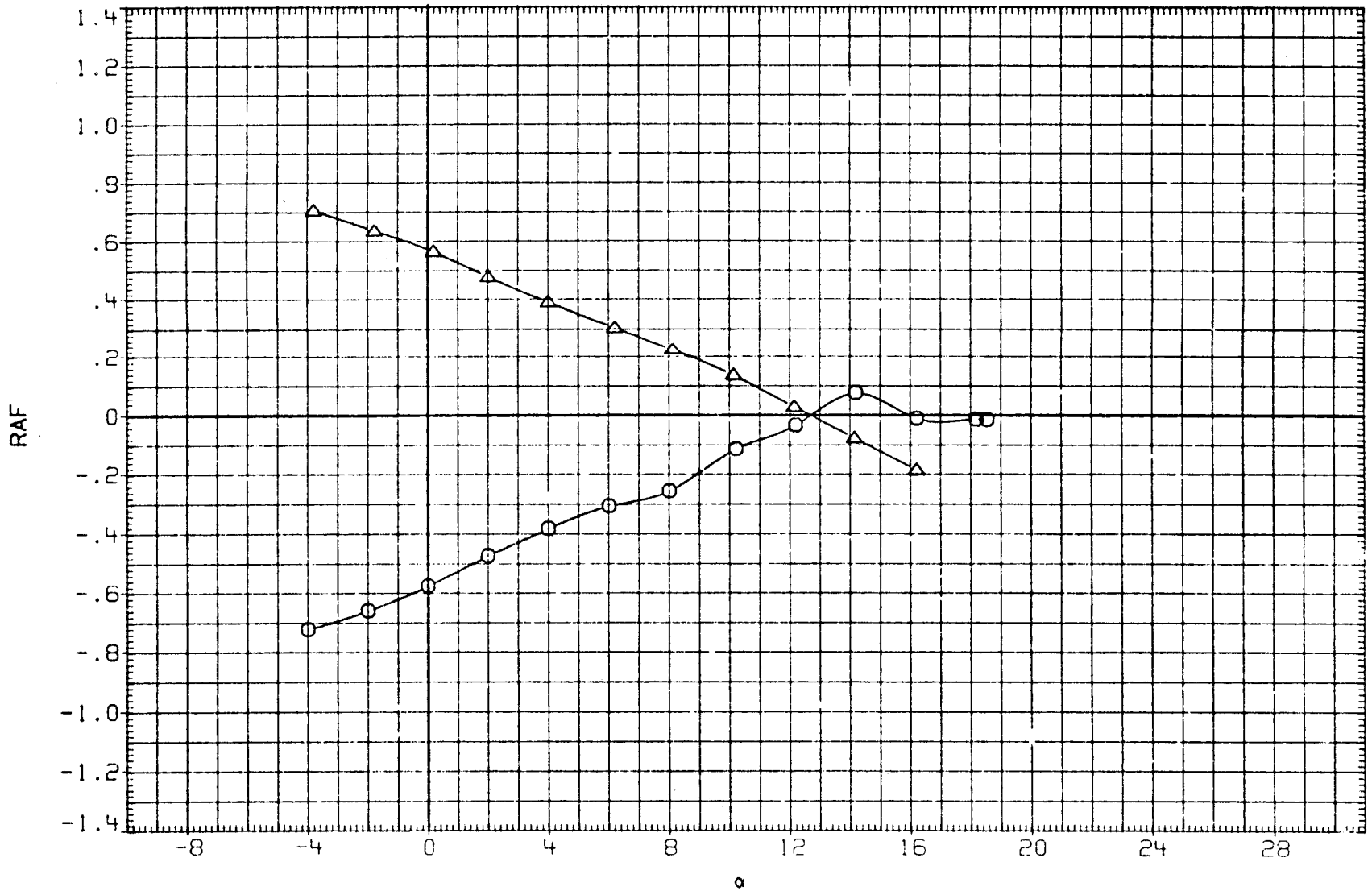


FIG. 92 0A232 FLIGHT TEST PROBE ALPHA PARAMETER CHARACTERISTICS

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
BVR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
BVR002	□	DATA NOT AVAILABLE	.000	180.000
BVR003	◇	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
BVRA17	△	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000

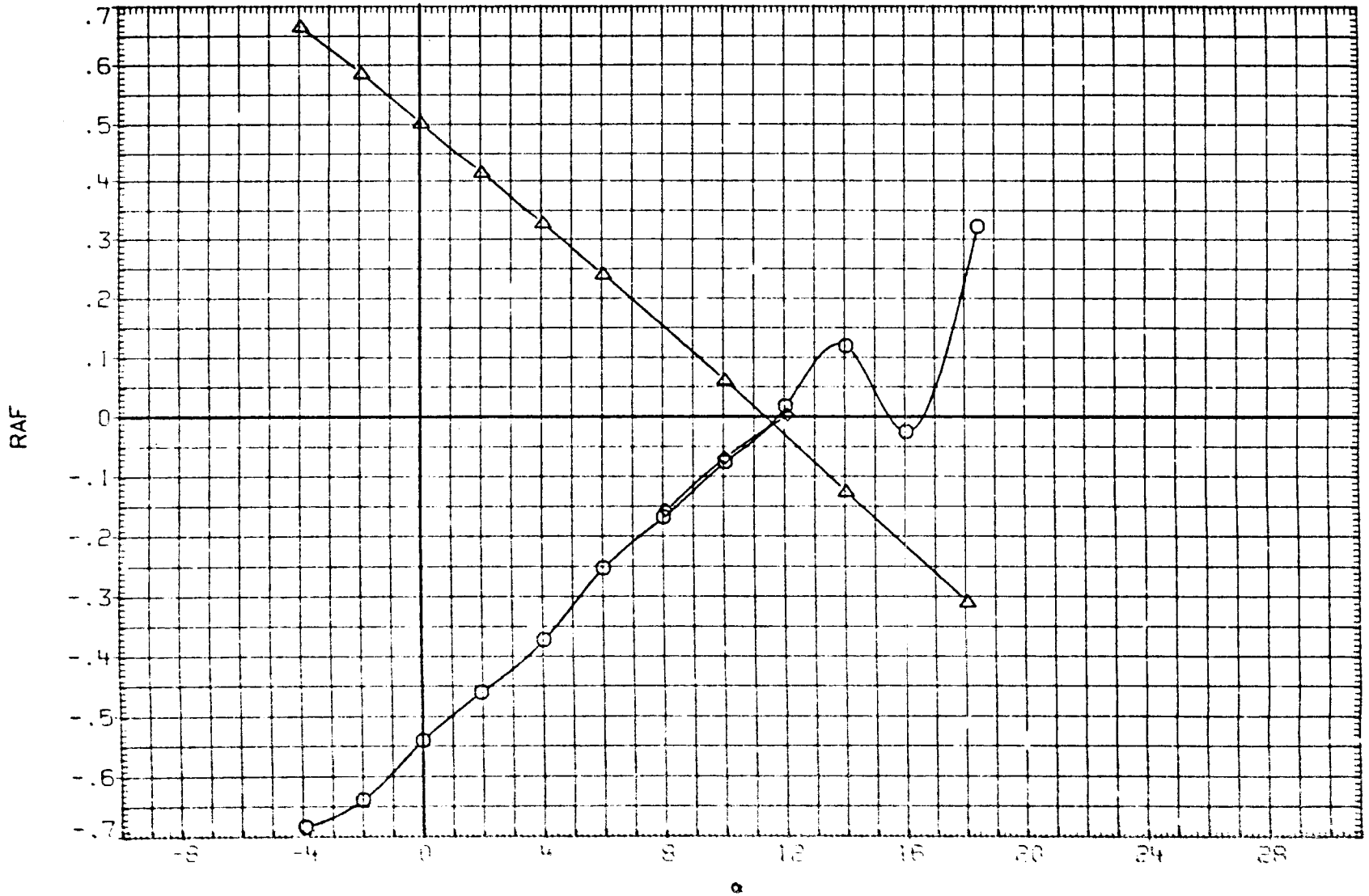


FIG. 92 0A232 FLIGHT TEST PROBE ALPHA PARAMETER CHARACTERISTICS

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
BVR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
BVR002	□	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP INV	.000	180.000
BVR003	◇	DATA NOT AVAILABLE	.000	.000
BVRA17	△	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000

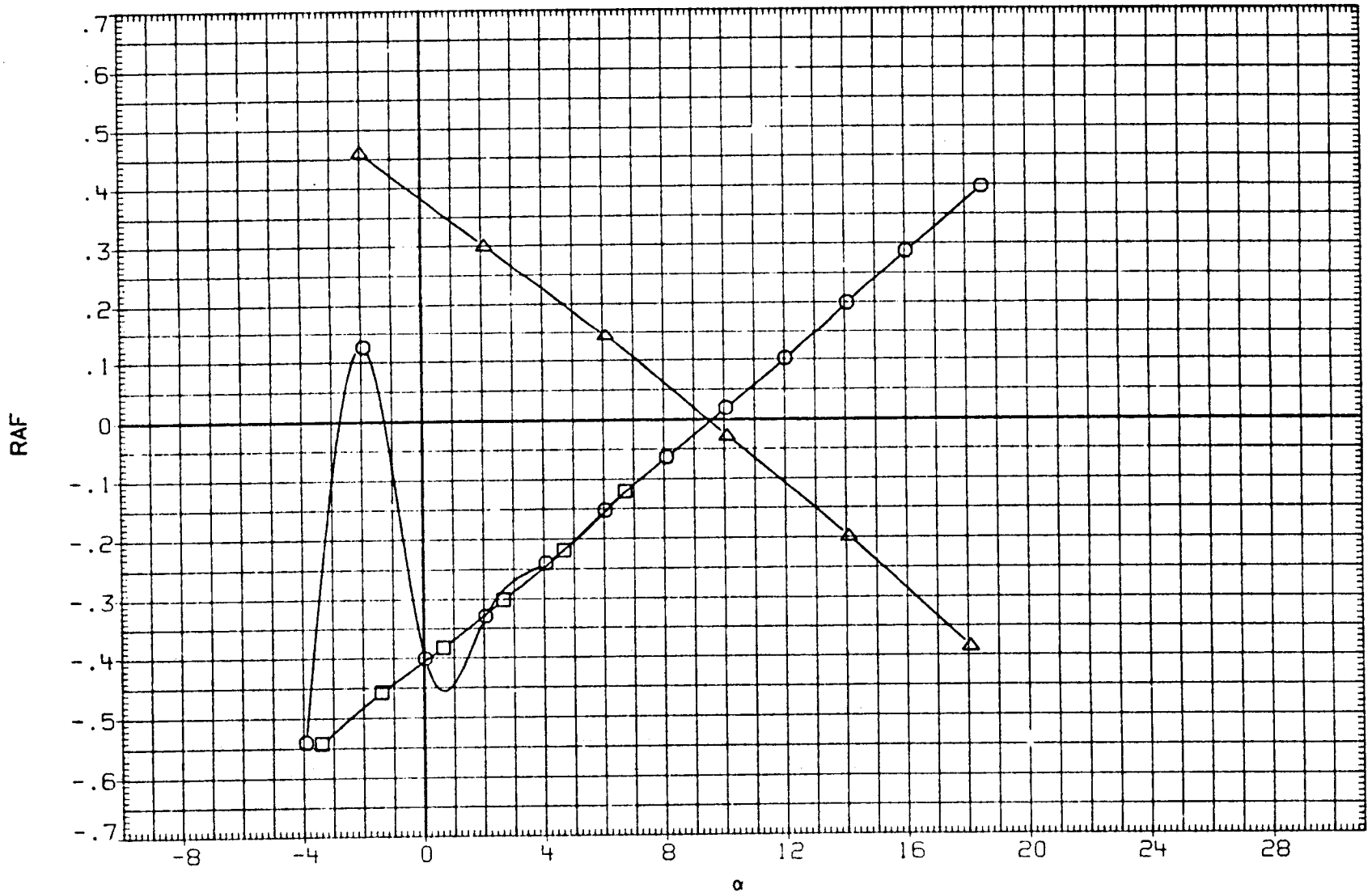


FIG. 92 0A232 FLIGHT TEST PROBE ALPHA PARAMETER CHARACTERISTICS

(D)MACH = .60 DATE 27 JUN 78 PAGE 331

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
BVR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
BVR002	□	DATA NOT AVAILABLE	.000	180.000
BVR003	◇	DATA NOT AVAILABLE	.000	.000
BVRA17	△	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000

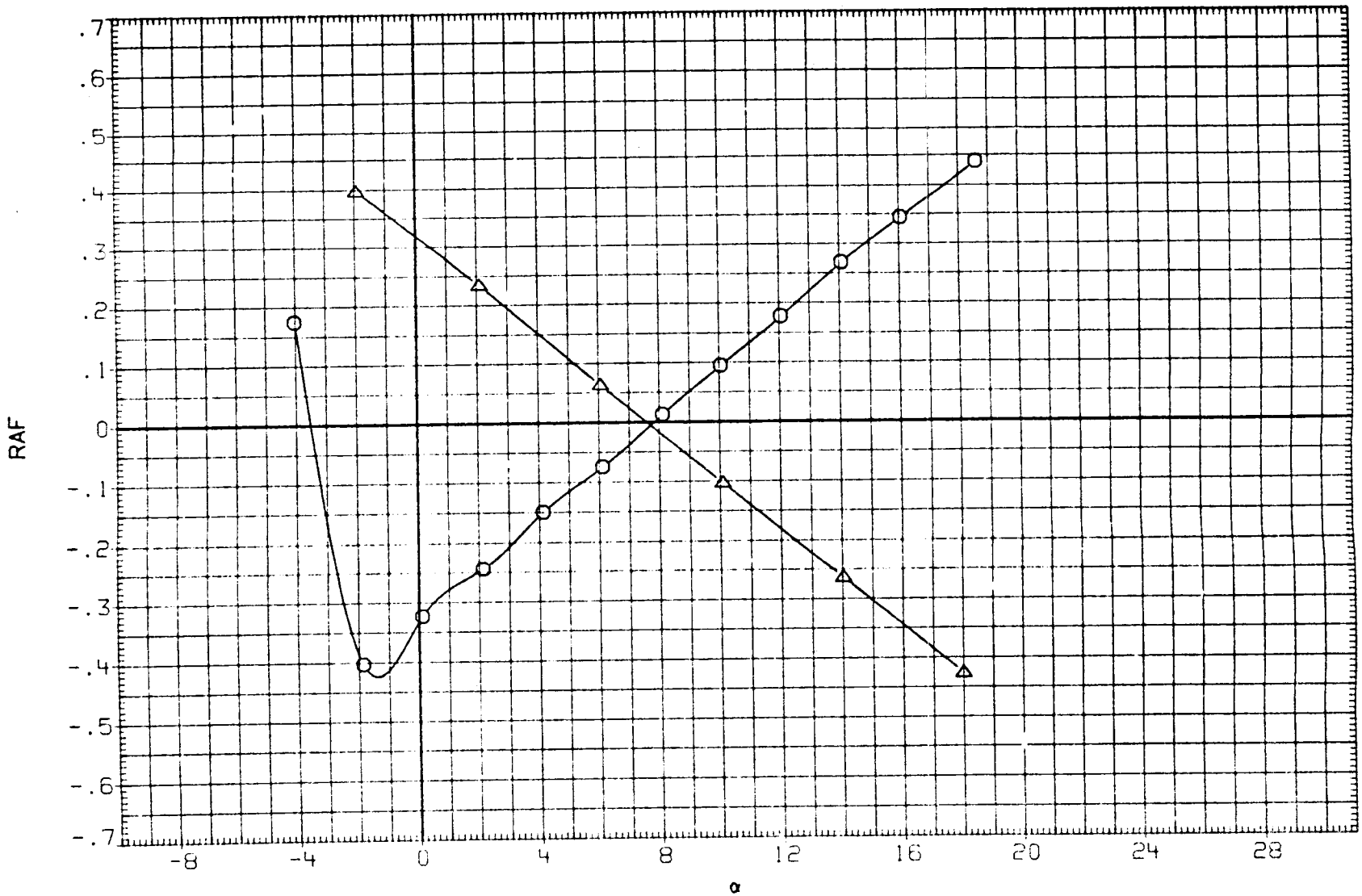


FIG. 92 0A232 FLIGHT TEST PROBE ALPHA PARAMETER CHARACTERISTICS

(E)MACH = .70

DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
BVR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
BVR002	□	DATA NOT AVAILABLE	.000	180.000
BVR003	◇	DATA NOT AVAILABLE	.000	.000
BVRA17	△	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000

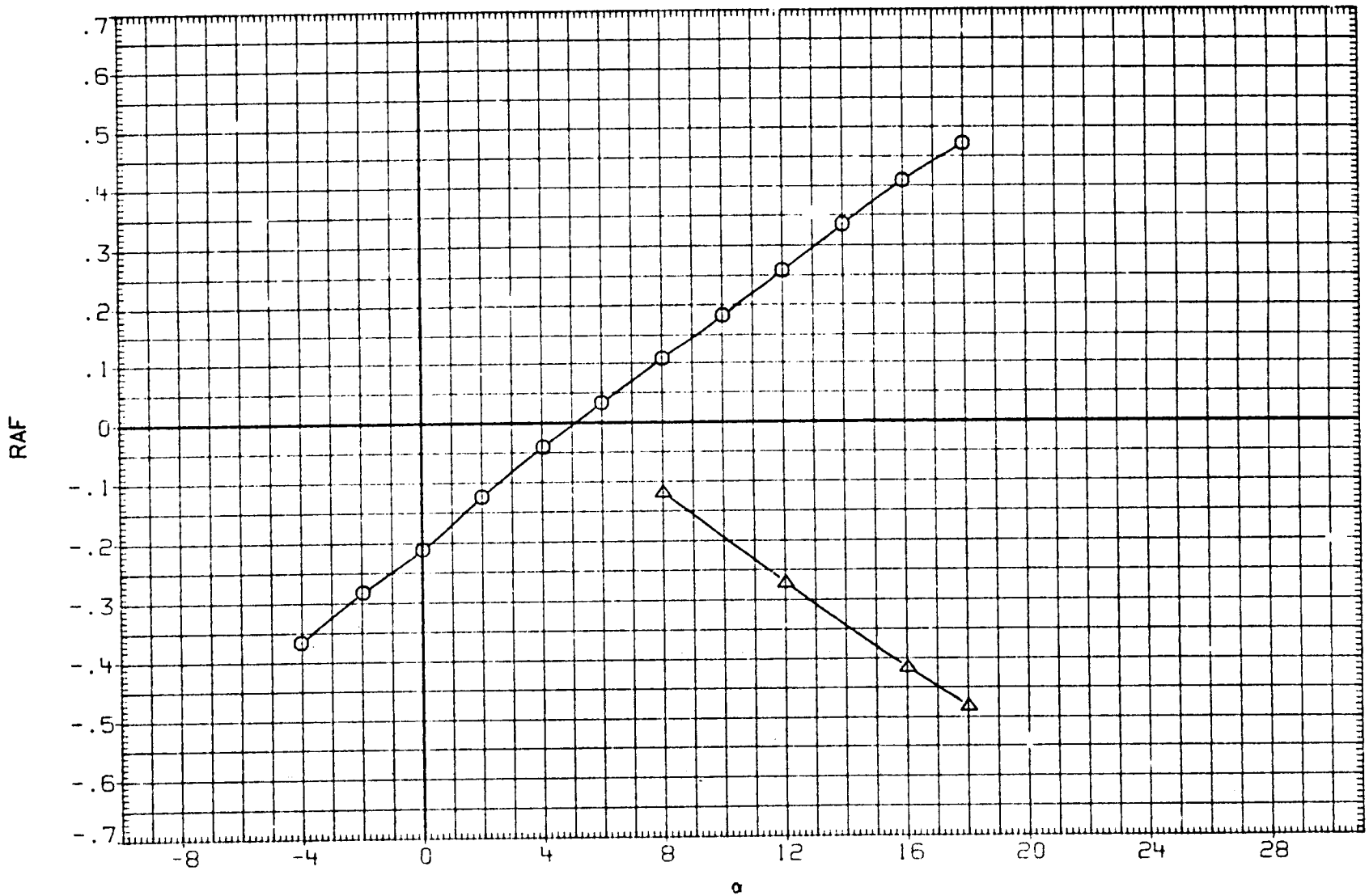


FIG. 92 0A232 FLIGHT TEST PROBE ALPHA PARAMETER CHARACTERISTICS

(F)MACH = .80 DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
BVR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
BVR002	□	DATA NOT AVAILABLE	.000	180.000
BVR003	◇	DATA NOT AVAILABLE	.000	.000
BVRA17	△	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000

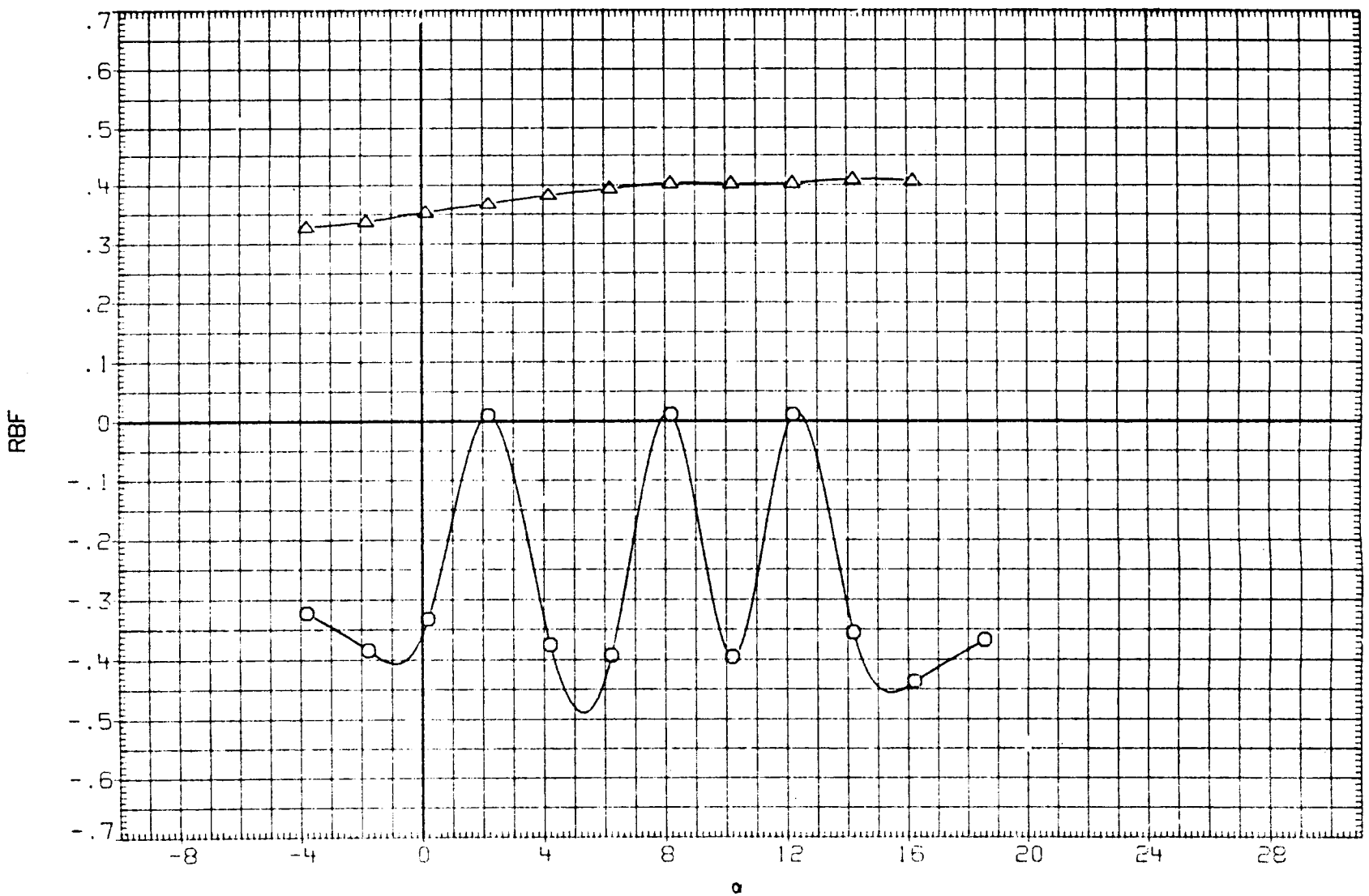


FIG. 93 0A232 FLIGHT TEST PROBE BETA PARAMETER CHARACTERISTICS

(A)MACH = .20 DATE 27 JUN 78 PAGE 334

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
BVR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
BVR002	□	DATA NOT AVAILABLE	.000	180.000
BVR003	◇	DATA NOT AVAILABLE	.000	.000
BVRA17	△	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000

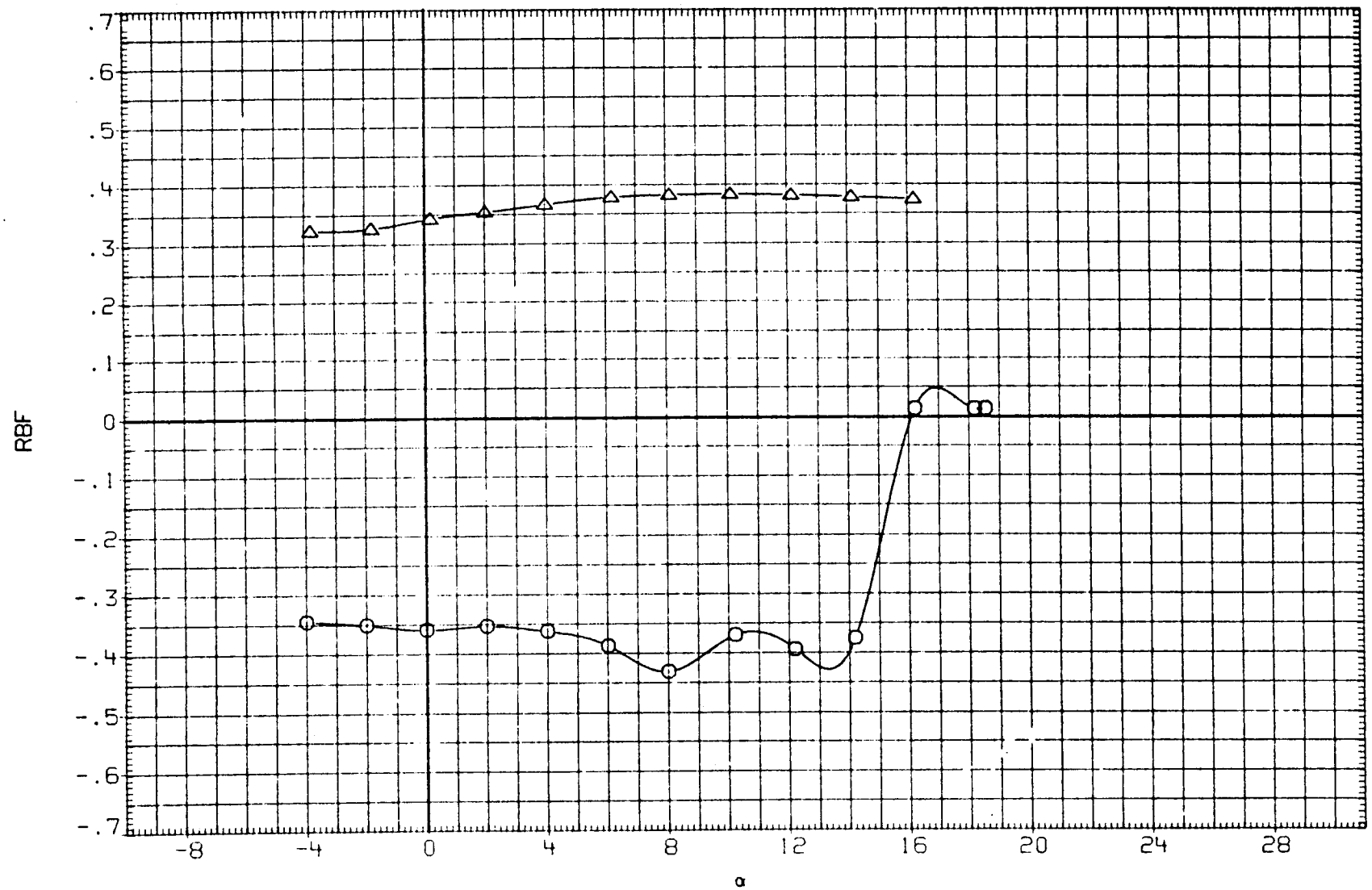


FIG. 93 0A232 FLIGHT TEST PROBE BETA PARAMETER CHARACTERISTICS

(B)MACH = .25 DATE 27 JUN 78 PAGE 335

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
BVR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	000
BVR002	□	DATA NOT AVAILABLE	.000	180.000
BVR003	◇	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
BVRA17	△	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000

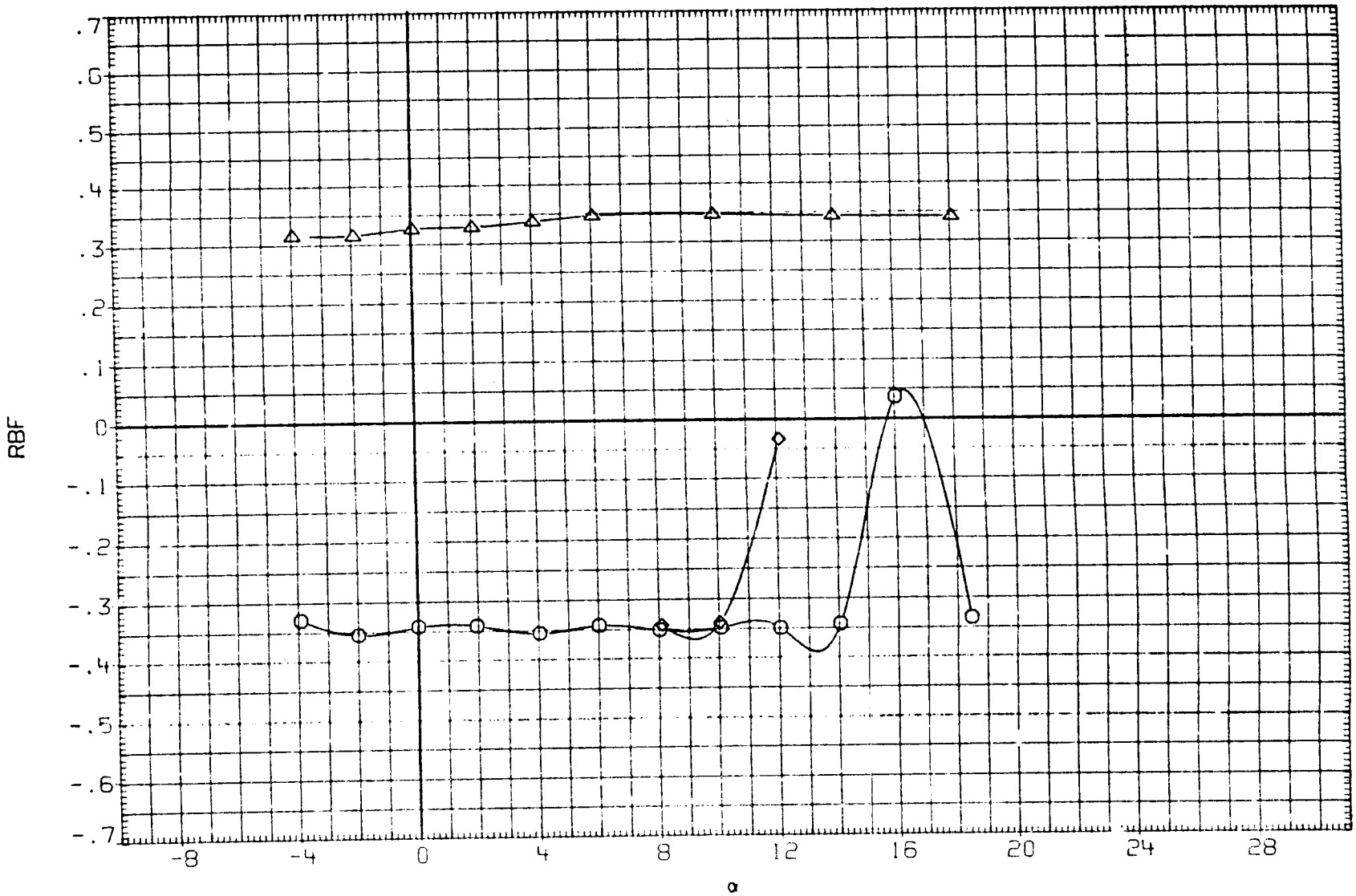


FIG. 93 0A232 FLIGHT TEST PROBE BETA PARAMETER CHARACTERISTICS

(C)MACH = .40 DATE 27 JUN 78

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
BVR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
BVR002	□	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP INV	.000	180.000
BVR003	◇	DATA NOT AVAILABLE	.000	.000
BVRA17	△	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000

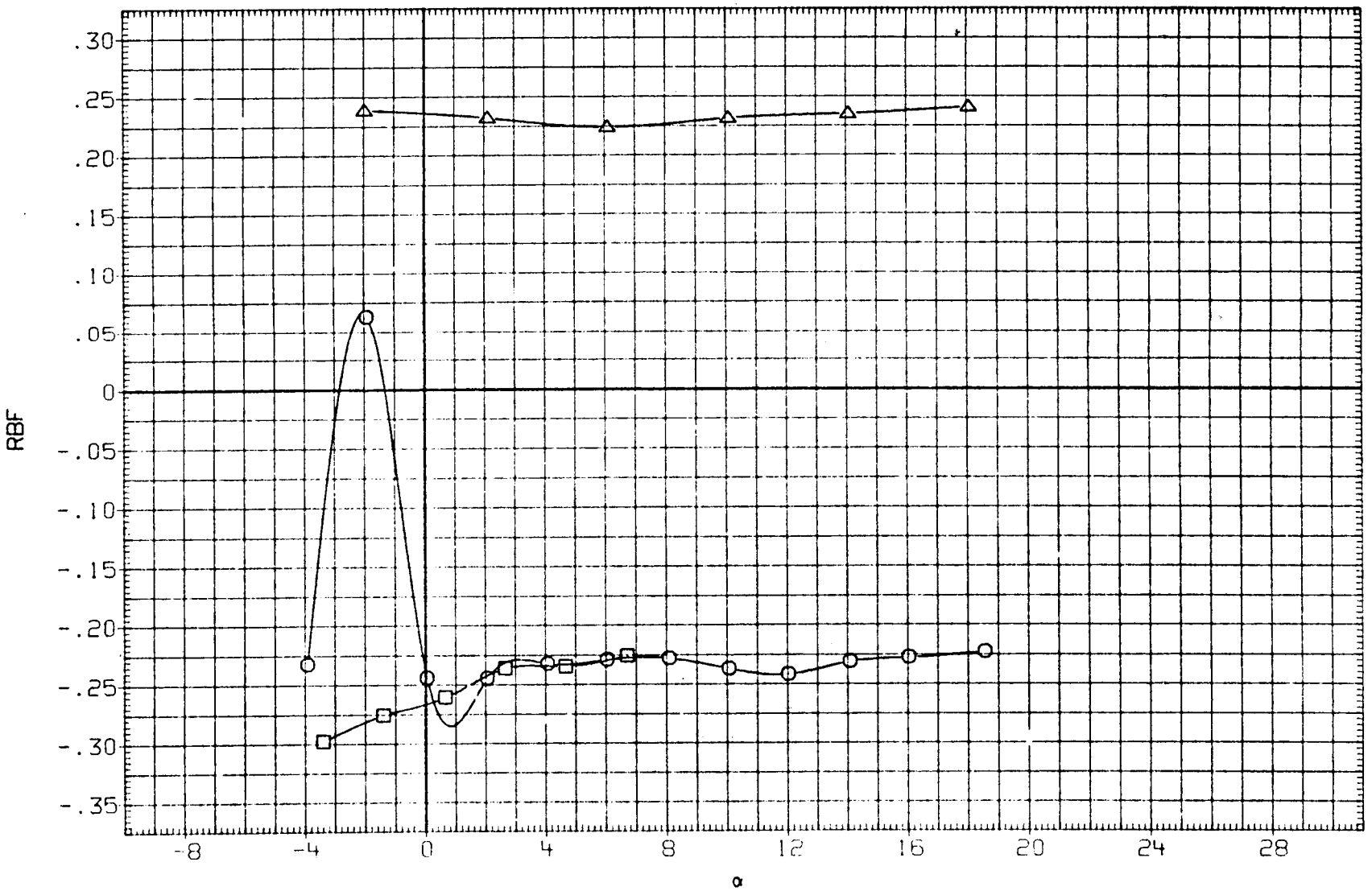


FIG. 93 0A232 FLIGHT TEST PROBE BETA PARAMETER CHARACTERISTICS

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
BVR001	○	0A232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
BVR002	□	DATA NOT AVAILABLE	.000	180.000
BVR003	◇	DATA NOT AVAILABLE	.000	.000
BVRA17	△	0A232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000

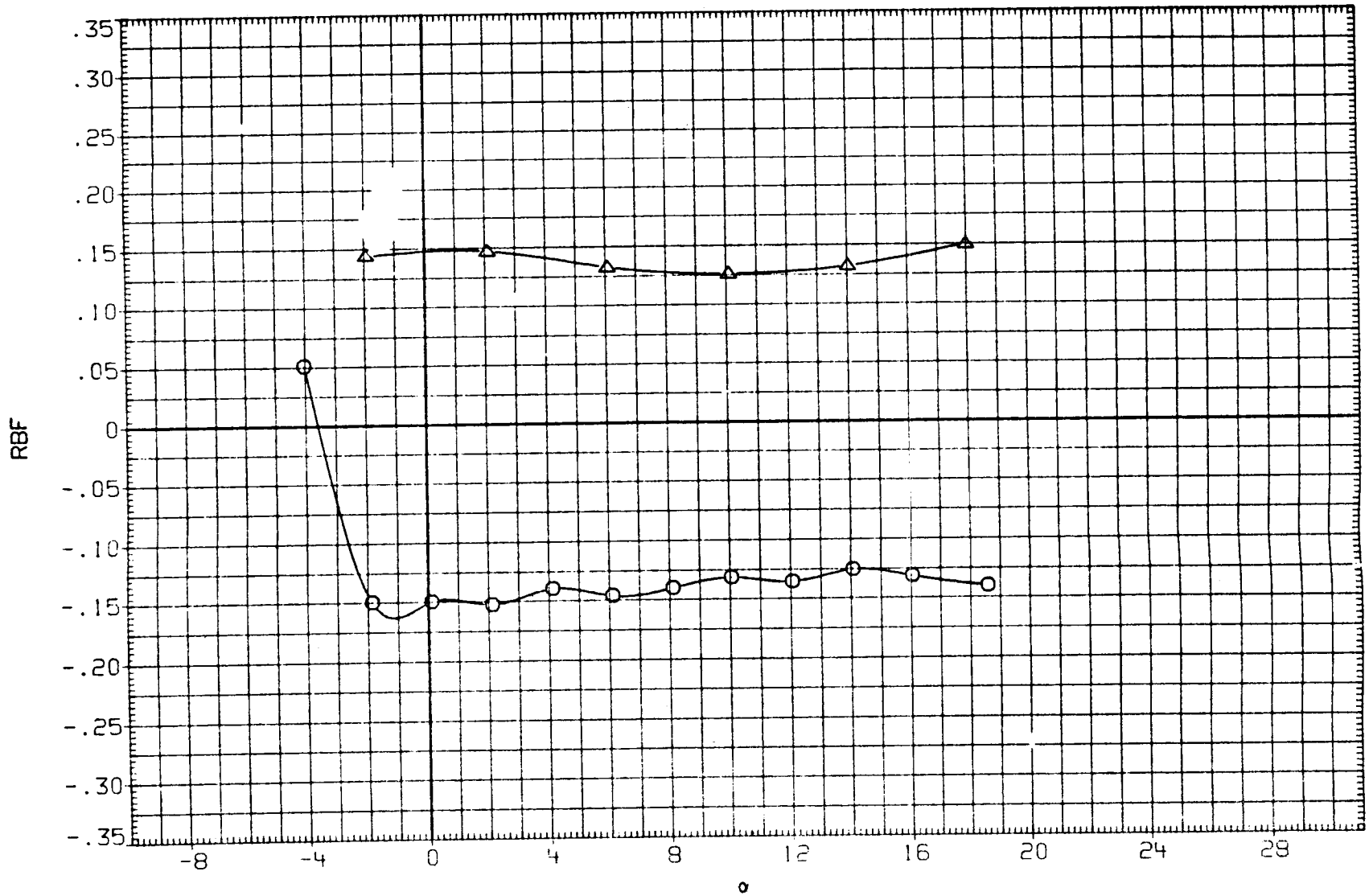


FIG. 93 0A232 FLIGHT TEST PROBE BETA PARAMETER CHARACTERISTICS

(E)MACH = .70 DATE 27 JUN 78 PAGE 338

DATA SET	SYMBOL	CONFIGURATION	BETA	PHI
BVR001	○	OA232 AEDC 16T TF431 LFO.2P/S RFO.2A FTP	.000	.000
BVR002	□	DATA NOT AVAILABLE	.000	180.000
BVR003	◇	DATA NOT AVAILABLE	.000	.000
BVRA17	△	OA232 AEDC 16T TF431 LA .2A RFN.1S FTP	.000	.000

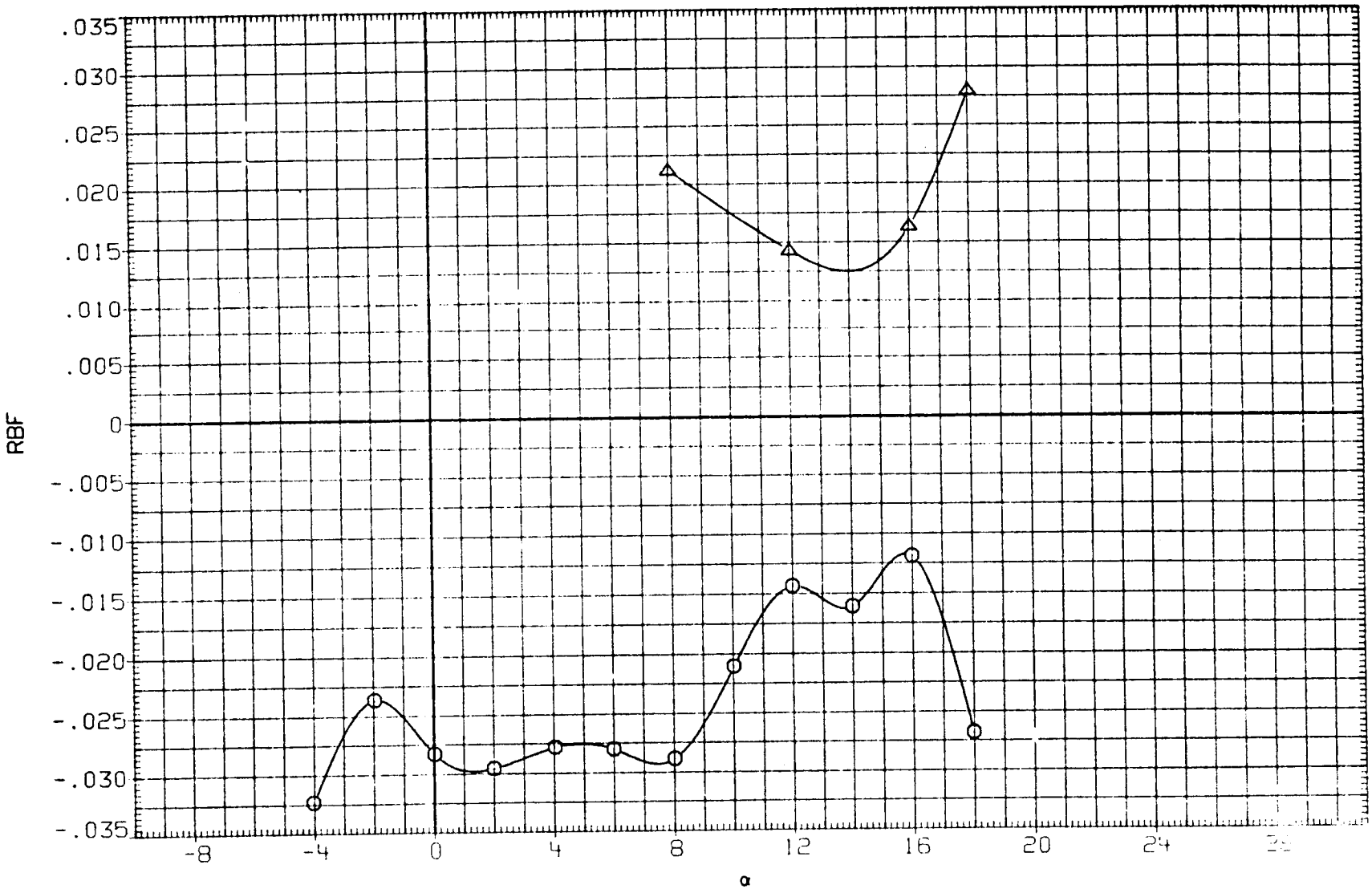


FIG. 93 OA232 FLIGHT TEST PROBE BETA PARAMETER CHARACTERISTICS

(F)MACH = .80 DATE 27 JUN 78 PAGE 339